

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,
KUMASI**

INSTITUTE OF DISTANCE LEARNING

DEPARTMENT OF ACCOUNTING AND FINANCE

**CORPORATE GOVERNANCE DETERMINANTS OF CAPITAL
STRUCTURE, EVIDENCE FROM LISTED MANUFACTURING FIRMS ON
THE GHANA STOCK EXCHANGE (GSE)**

By:

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**A THESIS SUBMITTED TO THE DEPARTMENT OF ACCOUNTING AND
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TECHNOLOGY, KUMASI**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD
OF A MASTER OF SCIENCE DEGREE IN ACCOUNTING AND FINANCE**

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DECLARATION

I hereby declare that this submission is my own work towards the award of Master of Science (MSc) degree in Accounting and Finance and that, to the best of my knowledge, it contains no material previously published by another person nor any material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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DEDICATION

I dedicate this work to the Lord Almighty for His enormous grace, mercies, and favour throughout my time of study. I also dedicate it to my family Emmanuel, Mabel, Wesley, and Benjamin Nuako who has been a pillar for me all these years. It has always been their wish to see me succeed in all endeavours.



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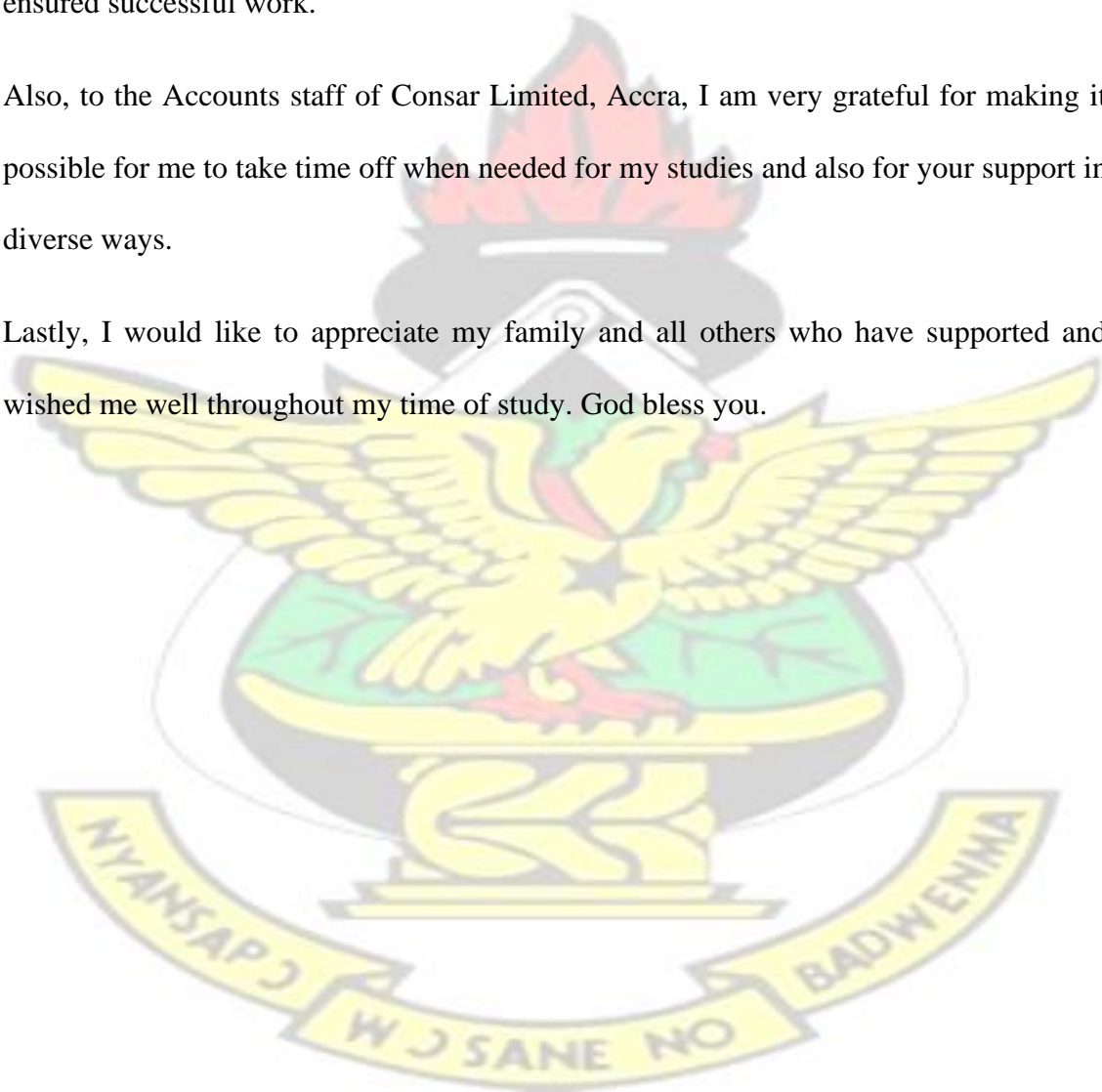
First and foremost, I would like to thank God for seeing me through this program.

Through thick and thin¹¹, He has been faithful to me.

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ABSTRACT

The study seeks to evaluate the effect the corporate governance determinants on the capital structure of manufacturing firms listed on the Ghana stock exchange. The Ghanaian-listed manufacturing firms are chosen as the demographic for this research. Purposive sampling is used in this study to sample 15 manufacturing firms in Ghana. Secondary data is gathered through annual reports submitted by companies for the period (2005-2021). A GMM method of estimation is adopted to estimate the parameters involved in the study objectives. The total debt ratio and the long-term debt ratio have a positive correlation with board size. The relationship between managerial and institutional ownership and a company's capital structure is substantial. There is a statistically significant and positive relationship between ownership concentration on both the short and long-term debt ratios. Based on the findings of this study, it is evident that block holders, as opposed to widely dispersed shareholders, can exert pressure on management to incur additional debt to minimize managerial opportunism. There will be fewer agency disputes between management and shareholders if shareholders own a greater percentage of the company. In terms of managing a company's finances, the research offers several recommendations and real-world implications. The results will help policymakers build corporate governance rules and practices and make value-relevant capital structure decisions in line with the implications of the corporate governance mechanism. The research also provides empirical support for the idea that businesses might benefit from reduced agency costs and lower cost of capital if they implement governance procedures—specifically if they disclose key information voluntarily.

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LIST OF ABBREVIATIONS/ACRONYMS

CG	- Corporate governance
CS	- Capital structure
SSA	- Sub-Saharan Africa
OECD Development	- Organization for Economic Co-Operation and Development
GMM	- Generalized Method of Moments



CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Manufacturing has always been seen as the engine of economic development (Herman, 2016). Therefore, good sector governance through systems of laws, customs, and procedures is becoming more and more important to experts and decision-makers. In the past, systemic crises or company failures have caused the structure of corporate governance to change (Yameen et al., 2019). The South Sea Bubble, which occurred in the 1700s is the first known instance of poor corporate governance and sparked a revolution in company law and practice in England (Kpodo, 2019). The United States stock market catastrophe in 1929 also sparked a revolution in securities rules (Alalade et al., 2019).

However, with the scandals involving Enron, Parmalat, Xerox, Anderson, Merrill Lynch, and WorldCom in the late 1990s, substantial attention is paid to corporate governance in many industrialized markets (Alalade et al., 2019). The Asian financial crisis in the middle of 1997 and the early 2000s global financial crisis which started in the US housing market both helped to accelerate this trend (Ghana, 2002).

Corporate governance (CG) failures are primarily to blame for the collapse of several firms in various economic sectors in Africa, notably sub-Saharan Africa (SSA) (Alalade et al., 2019; Banahene, 2018). Due to a significant implementation gap, insufficient board independence, unbalanced authority, and inadequate transparency, the degree of corporate governance adherence is poor in several SSA nations including Nigeria, South Africa, and Ghana (Banahene, 2018). Poor corporate governance is blamed for the failure

of Masterbond and MacMed in the late 1990s (Mishra and Kapil, 2017) as well as Regal Bank, Fedsure, LeisureNet, Saambou, Africa Bank, JCI-Randgold, Steinhoff, Fidentia, and VBS Mutual Bank in the 2000s in South Africa (Kiewit, 2019). The downfall of Masterbond is largely attributed to various fraudulent director actions that went unreported.

Poor governance procedures are primarily to blame for the early 2000s failures of Ghana Cooperative Bank Limited, Divine Sea Foods Limited, Bank for Housing and Construction Limited, Bonte Gold Mines Limited, Juapong Textiles Limited and Ghana Airways Limited in Ghana (Banahene, 2018). The Bank of Ghana (BoG) concludes that the 2017 to 2018 banking crisis in Ghana which resulted in the failures of UT Bank, Beige Bank, UniBank, Construction Bank, Capital Bank, Sovereign Bank, and Royal Bank is mostly caused by weak CG standards (Afolabi, 2018). The senior management and the board of directors were either inactive or engaged in activities that serve their personal interests rather than the advancement of the banks (Danquah et al., 2022; Debrah, 2018).

Due to inexperience or avarice, the bank's board of directors also fail to successfully promote an adequate method for reporting account activity and a system for external audits (Yameen et al., 2019). The data from these cases demonstrates that governance norms, even when they are in place, are not always adhered to. Ignoring or disregarding corporate governance principles is damaging to company success and should never be considered. The depth and breadth of the literature on corporate governance reveal a strong relationship between capital structure and performance (Yameen et al., 2019). A better degree of business performance necessitates effective corporate governance procedures including insightful strategic decisions on their capital structure determinant, according to research by Yameen et al., (2019) and Alalade et al.,(2019).

Despite this, the literature on corporate governance asserts that capital structure and ownership structure are somewhat connected to the degree of performance of enterprises as a consequence of corporate governance procedures (Yameen et al., 2019). To provide one specific example, in Ghana, it has been said that owing to capital structure disparities and stricter compliance with corporate governance laws, foreign-owned enterprises outperform their indigenous counterparts (Selassie, 2018). According to tradition, a large number of the recent bank failures in Ghana are locally held institutions (Selassie, 2018). Lower ownership concentration has also been found to be an effective control mechanism to decrease the interest-maximizing tactics of managers against a shareholder, even if some researchers acknowledge the diversity of capital structures of enterprises (Yameen et al., 2019). According to reports, factors affecting the capital structure such as firm size, number of years in business, ownership, etc., influence the relationship between business performance and corporate governance (Boachie, 2021).

Manufacturing firms' capital structure determination is a scientific field that has recently attracted less study attention, despite the widespread acceptance of manufacturing significance as the economic game-changer for developing nations. As a result, this study and others that are anticipated in the near future must be directed at bringing insight into how manufacturing businesses determine their corporate governance capital structure.

The capital structure (CS) of a firm describes the sources and uses of the money it has to get off the ground and expand (Ullah et al., 2017). Depending on its financing choices, a corporation may have varying amounts of debt and equity capital on hand. The capital structure choice is central to many other corporate governance and business management decisions, making it important to the success of organizations.

The main objectives are to increase shareholder wealth and reduce the cost of the capital required. Therefore, this tool continues to be useful for managing the CS of manufacturing firms. The cost of the capital demand must be as low as possible to achieve the ideal capital structure. But what factors might influence such an ideal capital structure for manufacturing firms? These questions as well as other weighty ones serve to justify this study.

1.2 Problem statement

A number of researchers have acknowledged the connection between corporate governance capital structure, financial accessibility, and the expansion of manufacturing enterprises (Danquah et al., 2022; Mishra and Kapil, 2017; Debrah, 2018). A loop in the financing of manufacturing companies is made by this submission. Inadequate corporate governance, a lack of finance to pursue proven successful business prospects in the manufacturing sector of the economy and a lack of leadership push toward industrialization are some of the points from which the natural gap is seen (Debrah, 2018). According to Mishra and Kapil, (2017), the corporate governance capital structure determinant is the main hindrance to the expansion of manufacturing and has a significant impact on the availability of finance.

Many studies on the subject of corporate governance capital structure determinants have concentrated on the banking industry (Danquah et al., 2022; Ullah et al., 2017) but there has also been substantial research on the topic of capital structure determinants for manufacturing firms and their economic impact. Interestingly, few studies have examined the complex connection between CG, factors affecting CS, and the expansion or success of manufacturing firms.

Several studies on the relationships between CG and CS determinants are discovered in developed nations (Peizhi and Ramzan, 2020; Oyedokun et al., 2018; Krechovska and Prochazkova, 2014), but few studies with roots in developing nations are discovered, the majority of which are in the banking sector (Boachie, 2021) It is essential to empirically investigate this connection in the manufacturing sector to give relevant knowledge particular to the industry due to operational variations between the finance and manufacturing sectors.

Studies conducted in developing nations (such as those by Selassie, 2018, Ullah et al., 2017; Yameen et al., 2019; Kpodo, 2019) consistently yield findings that differ from those of studies conducted in the West. Financial theories of corporate governance and capital structure which are first created to shed light on the financing practices of businesses in developed nations, may not be applicable in developing nations due to institutional and cultural differences (Danquah et al., 2022; Boachie, 2021). According to the numerous international studies cited above, several factors are found to have an impact on the capital structure of manufacturing firms. Regarding the direction of the association between corporate governance, capital structure, and its determinants, the findings, however, are not always consistent.

Although many studies have been conducted to examine the capital structure of the firms, it is interesting to note that the conclusions reached are still ambiguous. Some studies by Danquah et al., (2022) and Kpodo (2019) argue that these inconsistent conclusions could be caused by incorrectly measuring important factors, looking at the wrong models or problems, misspecifications in the management decision-making process, or owner-managers being unresponsive. Therefore, with a focus on the manufacturing industry, this study conducts an empirical investigation of the corporate governance capital structure. Only one empirical study (Sarpong-Danquah, 2022) is cited in the existing

studies on corporate governance capital structure determination of manufacturing firms in Ghana. Because this study does not examine the effects of the environment, managerial attitudes, culture, and network ties on manufacturing firms in Ghana, it left a gap that needs to be filled. This study hopes to fill this gap by empirically investigating the corporate governance capital structure from this perspective.

1.3 Objective of the Study

The study is focused on assessing the corporate governance capital structure determinants of manufacturing firms listed on the Ghana stock exchange. Specifically, the study seeks to address the following objectives;

1. To evaluate the effect of Board size and Board independence on the capital structure of manufacturing firms in Ghana.
2. To examine the effect of managerial and institutional ownership on the capital structure of manufacturing firms in Ghana.
3. To investigate the effect of Ownership concentration and CEO duality on the capital structure of manufacturing firms in Ghana.

1.4 Research Questions

The following research questions are framed to guide its objective conclusions;

1. What is the effect of Board size and Board independence on the capital structure of manufacturing firms in Ghana?
2. What is the effect of managerial and institutional ownership on the capital structure of manufacturing firms in Ghana?

3. What is the effect of Ownership concentration and CEO duality on the capital structure of manufacturing firms in Ghana?

1.5 Significance of the study

The study's numerous contributions have been advantageous for both the literature and practice. First and foremost, the study adds to the body of knowledge on how corporate governance affects manufacturing companies' financial success. The empirical data that is given from the setting of manufacturing firms, a phenomenon that is lacking in research, makes a substantial contribution to the literature.

Second, the study adds to the literature by examining how the age and size of a firm influence the capital structure of manufacturing companies. Evidence from this study helps policymakers understand how the age and size of a firm of manufacturing enterprises affect a company's overall performance. It is crucial to have empirical data on the impact of various corporate governance practices on manufacturing company performance, such as block ownership since this gives policymakers and regulators significant new information. This study represents a significant empirical contribution because the industrial sector has received little attention in the literature.

1.6 Scope of the Study

Conceptually, the study bordered on understanding the corporate governance capital structure determinants of manufacturing firms. Special interest is attached to the relationship between the two indicators of corporate governance and capital structure determinants and how managerial ownership and processes influence the performance of these listed manufacturing firms.

The study is geographically limited to not only Ghanaian manufacturing firms but those listed on the Ghana Stock Exchange. These firms are clustered into Agriculture products, Engineering, and pharmaceuticals among others.

1.7 Limitations of the Study

Every social research project has a number of constraints, including those related to data collection, financing, timeliness, and coverage. There were issues with coverage, timeliness, and data collection in the current study. The usage of 15 companies clustered within the categories of agriculture, pharmaceuticals, engineering, and others provides a sample size restriction given the number of listed companies on the Ghana Stock Exchange.

Additionally, distinctive to most Ghanaian businesses is their traditional aversion to scrutiny, answering inquiries, and bookkeeping. The majority of managerial processes are informal and so unable to speak to facts. Those who have information are reluctant to divulge specifics about their corporate governance capital drivers and performance.

1.8 Brief Methodology

Cross-sectional data collecting is used in this study. To investigate the corporate governance and capital structure drivers of manufacturing businesses listed on the Ghana Stock Exchange, it uses a purely quantitative research design. The research specifically chose 15 manufacturing firms including businesses from the pharmaceutical, technology and engineering, agricultural, and other sectors. Secondary data between 2005 and 2021 were used for the analysis. A codebook is created using SPSS to allow for data entry and analysis. A descriptive analysis is conducted to provide an overview of indicators after which an objective analysis using inferential statistical tools is used. A dynamic model is used to cater for endogeneity issues.

1.9 Organization of the Study

The study is structured into five chapters. The first chapter provides the introduction and historical context. The theoretical framework for examining corporate governance, capital structure, and manufacturing business performance is presented in the next portion of the study. The methodological framework for the investigation is presented in the third part. The data analysis and subsequent discussion are included in the fourth part. The research findings and inferences made before making a suggestion for management and further study are presented in the final part.



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter groups the literature on the topic into the following sections: conceptual review, theoretical review, empirical review, hypothesis formulation, and conceptual framework. The conceptual review provides literature on the idea of the constructs known as; corporate governance, capital structure determinants, and ownership characteristics. The theoretical review describes agency theory and pecking order theory as the guiding theoretical foundation of the study. The empirical review provides literature on the objectives of the study which was built using findings from earlier related studies and finally, the hypothesis was developed.

2.2 Conceptual Review

The section offers definitions for the construct in the study known as corporate governance and capital structure. The study also identifies how these constructs are used in the study.

2.2.1 Corporate Governance

Corporate governance is a tool for maximizing shareholder value through organizational management, a topic that has historically been connected to issues with agencies (Adel et al., 2019; AlHares et al., 2020; Gerged and Elheddad, 2020; Gerged et al., 2018; Ullah et al., 2019). Corporate governance (CG) and efficiency are two topics that academics are increasingly paying attention to, as seen by the recent surge in the number of research in this field (Naciti et al., 2021). This suggests that worries about sustainability and the impact of governance on performance are spreading (Naciti et al., 2021).

The rise of international commerce, the modernization of stock organizations, and the tremendous growth of multinational corporations during the early nineteenth-century industrial revolution are all factors that contributed to the creation of corporate governance (McKenzie et al., 2019). There are several different and broadly categorized definitions of corporate governance.

The first is focused on performance, efficiency, expansion, financial structure, and the treatment of shareholders and other stakeholders. It is the most significant since it involves a collection of behavioural patterns or the unique behaviour of organizations. The second category of regulations focuses on the guidelines that specify how businesses must conduct their activities. The financial markets, the labour markets, the legal system, and the judicial system are just a few venues where one could find these standards (Bhaumik, Driffield, Gaur, Mickiewicz, and Vaaler, 2019).

CG is defined as a body of rules, protocols, values, and organizational structures that promote moral corporate conduct that is focused on the needs of different stakeholders (Du Plessis et al., 2018). Another approach to seeing corporate governance is as a set of rules, laws, and customs that affect the operational activity and management decision-making (Pratiwi, 2016). CG is essential because it supports formal decision-making to lower risks, manage hazards, and assist companies in achieving their objectives (Purbawangsa et al., 2019). According to Elston (2019), corporate governance is the method by which creditors to businesses are guaranteed a return on their investment. The Organization for Economic Co-Operation and Development (OECD, 2004) defines CG as the process by which a corporation is managed and regulated to ensure the satisfaction of all of its shareholders. According to Ronoowah and Seetanah, CG also refers to procedures designed to improve corporate responsibility and stop major disasters in their tracks (2022).

From the aforementioned definitions, the research suggested Elston's (2019) definition, according to which CG is the method used by lenders to businesses to assure that they would receive a return on their investment. CG seeks to increase a business's profitability. The use of CG inspires businesses to manage resources in a way that enhances their performance and value. If an organization's performance is increasing, that organization is considered to have achieved a business objective (Wati 2016). A number of studies, including those by Aprianingsih and Yushita (2016), Fidiana (2017), Melia (2015), Santoso, Yulianeu, and Fathoni, (2018)), Dewi and Nugrahanti, (2017), show how CG boosts a company's profitability.

2.2.2 Capital Structure

The capital structure of a company determines whether it can finance future investment initiatives using debt, equity, or a combination of the two (Chauhan, et al., 2022). As the ongoing source of funding for businesses, the capital structure reflects both net worth and long-term debt. When a company selects how to finance its assets and determines its corporate cost of capital, it affects both the performance and value of the company (Vu, Tran, Doan, and Le, 2020). To minimize capital costs and enhance shareholders' interests is one of the drivers of capital structure management (Danso et al., 2019; Uwuigbe, 2014).

The concept of capital structure refers to a long-term financing pattern that is created by a specified structure of preferred stock, owner capital, and long-term indebtedness (Vu, et al., 2020). According to Yapa Abeywardhana (2017), without taxes, bankruptcy fees, agency charges, or asymmetric knowledge, a company's worth is determined by market efficiency. This value is independent of the firm's source of financing. The importance of

capital structure is highlighted by Viviani (2008), who also demonstrates how an ideal CS lowers the cost of capital and raises company value. (Agrawal, et al., 2019) talked about how to choose the best capital structure while taking into account cost restructuring to produce an ideal capital structure. These criteria might include growth, cash flow, size, product, and industry features. The variables of capital structure, including profitability, growth, asset tangibility, size, debt, and tax rate, according to Handoo and Sharma (2014), have a substantial influence on debt level.

According to De Andrés et al. (2018) and Vo (2017), capital structure is a vital corporate policy that governs a firm's operations concerning loans and equity. It is also defined as the best mix of long-term debt and equity. According to (Campbell and Rogers 2018), businesses with high levels of capital volatility experience lower profit margins and are more likely to adopt restrictive dividend policies. It is also asserted that country-specific factors as well as firm-specific ones affect a firm's capital structure. A firm's capital structure describes the mix of debt and equity used to finance its operations and investments (Okegbe, et al., 2019).

From a business standpoint, equity, according to (Mujiatun, et al., 2021), provides a more expensive, long-term source of capital with more financial flexibility. The writers also point out that financial adaptability enables a business to acquire money when needed on reasonable terms. Instead, debt is a cheaper, limited-to-maturity source of capital that legally binds a firm to pay projected cash outflows on a fixed timeline and needs refinancing at a later time at an uncertain cost (Pham, 2020). According to (Husaeni, 2018), capital structure refers to the mix of stocks, bonds, and other assets used to fund a corporation over the long term. The author claims that determining the type of securities to be issued, such as equity shares, preference shares, and long-term borrowings

(Debentures), as well as the relative ratio of securities, is done through the capital gearing process.

If investment options and dividend policies remain unchanged, the capital structure theory explains whether changes in capital structure have an impact on a firm's value (Zulvia and Linda, 2019). In other words, will the stock price alter if the firm uses debt in place of some of its capital or vice versa? However, the ideal capital structure is found if the company's value evolves together with the capital structure. The optimal capital structure is one that can increase the firm value or stock price (Suardikha, and Apriada, 2016). Tangibility, profitability, sales growth, business risk, company size, liquidity, non-debt tax shielding, etc. are all factors that affect the capital structure (Zulvia, and Linda, 2019). The four main factors that determine capital structure—profitability, liquidity, business size, and non-debt tax shields—are further explored in this study.

The optimal capital structure for a corporation is one with a low-weighted average cost of capital and maximum shareholder value. However, optimum structure calculation requires a strategic approach and logical reasoning. An organization's optimal capital structure is a crucial decision. Indeed, any capital structure selection is essential for the requirement to optimize returns for diverse organizational constituents, and this decision appears to impact the organization's capacity to compete in its industry-specific competitive environment. Internal or external sources may provide funds for a business's operations. When raising cash from outside sources, companies choose between shares and debt. The majority of a company's financial decision-making work is devoted to determining the best capital structure (Sugiyanto, 2017).

The ideal CS reduces the firm's weighted average cost of capital and maximizes shareholder value. In order to increase the company's worth, CS expenses should be kept

as low as possible. When you get to this point, your CS is as good as it can be. According to Sugiyanto (2017), optimum CS is the combination of debt and equity that maximises a company's value. The best CS is the one with the greatest business value and the lowest Weighted Average Cost of Capital (WACC).

Again, Clemente-Almendros and Sogorb-Mira (2018) claim that if the increase in debt level is equal to the bankruptcy expenses, a maximum CS may be attained if tax sheltering advantages are available. They contend that executives should be able to identify when they have achieved the optimum capital structure and work to maintain it. This is where finance expenses and capital costs are reduced, boosting business value and performance. Scholars have recognized the effects of equity and debt combinations in business capital structures (Qureshi et al., 2017; Dat-Dang and Van-Trang Do, 2021; Banerjee and Feinstein, 2022) on the firm's present and future financial operations. Debt, a tax-deductible expense, seems inexpensive because the after-tax cost is lower than equity, which improves profits per share and dividends per share.

Debt Financing

Businesses must find reasonable funding choices for their debt financing needs. Debt is an external source of business capital (Ahsan, 2020). It entails funding a company's activities and assets by issuing financial instruments such as short-term debt, long-term debt, loans payable, notes payable, bonds, debentures, and so on (Aguilar et al., 2019). Debts are classified into two types depending on their duration: long-term debt (LTD) and short-term debt (STD) (STD). In its technical definition, debt financing refers to borrowing cash from a third party with the obligation to return the principal plus an agreed-upon interest rate. The most common kind of debt financing is a loan. Because of

operational restrictions, the company is unable to capitalize on opportunities beyond the scope of its principal business if it accepts loan finance.

Short-Term Debt

Short-term debt represents the proportion of an organization's assets that are financed by short-term borrowings (Abdullah and Tursoy, 2021). The capital structure and financing choices of a business heavily include short-term debt borrowing. This is because the expense of maintaining short-term debt is less of a burden on the firm, and short-term loans let enterprises satisfy their urgent funding requirements without needing a long-term commitment, and short-term loans typically carry lower interest rates (Khan and Ghayas, 2020). It has been noted by Ayuba et al. (2019) that the cash flow needs for debt service payments may be more accurately estimated when short-term borrowing is included in the measure of debt. As interest accrues on long-term debt, an expenditure is recorded, but no cash is really spent until the interest is actually paid.

A more realistic picture of the company's cash needs is painted by considering not just the existing long-term debt but also the short-term debt, as this debt needs to be repaid in the near future with cash or other liquid assets. In agreement with the preceding, According to Aziz and Abbas (2019), a company reduces its interest expenditure by using short-term debt as a source of funding indefinitely if the loan is refinanced at maturity to take advantage of an increasing yield curve. Since the yield curve is upward-sloping, Davis and Mossessian (2019) argue that when this happens, short-term debt interest rates are less than long-term debt rates. As interest costs are reduced when short-term debt is used to fund long-term debt, this strategy is attractive to businesses. In the absence of sufficient internally generated resources, investing in long-term opportunities is hindered,

according to Purba and Septian (2019), because of the need to make interest and principal payments quickly.

Despite this, studies looking at the connection between short-term debt financing and financial success have shown mixed results. Several studies have shown that using short-term funding sources improves financial results because of the fewer commitments required by using such a funding source (Ajibola et al., 2018; Meshack et al., 2020), there is evidence to imply that the firm's cost of capital and its ability to generate profits would suffer if it relied on short-term debt due to its short maturity (Akomeah et al., 2018; Olumuyiwa-Ganiyu et al., 2018; Robert et al., 2020).

Long-Term Debt

Long-term debt is the proportion of a company's resources owed to third parties with maturities beyond one fiscal year (Abdullah and Tursoy, 2021). The ratio between an entity's total long-term obligations and its total assets is used to determine its level of long-term debt. This ratio measures the extent to which long-term debt is used to fund the company's assets. It is common practise for companies to employ long-term debt to fund investments made during the present era. However, empirical research demonstrates that despite its limited accessibility, long-term debt is a crucial source of funding for long-term investments (Sivalingam and Kengatharan, 2018; Ajibola et al., 2018).

Similarly, Long-term debt, according to Aziz and Abbas (2019), stops creditors from using bankruptcy as a tool to steal the revenues of solvent businesses. Despite the accessibility issue, debt financing remains the primary source of funding for publicly traded companies. Most businesses and organisations still rely on debt financing due to the ease with which debt can be accessed and the difficulty in gaining clearance for equity financing from stock exchanges (Pepis and de Jong, 2019).

Creditors see a low debt-to-equity ratio favourably, which benefits the company if it ever has to borrow additional money. Debt financing provides advantages such as tax shelter and the reduction of free cash flow difficulties through improving management conduct, yet failure to satisfy such financial obligations may result in the loss of a collateralized asset or even bankruptcy (Giambona et al., 2022). The attained interest expense is subtracted from income to diminish the profit before tax and the impact of the taxes collected. The CS of a heavily leveraged firm is aggressive and raises the risk to investors. Furthermore, if a corporation drastically increases its use of leverage, the cost of debt may rise as lenders become concerned about the company's ability to repay its debts. Delfino (2021) believes that the cost of shares consistently exceeds the cost of debt regardless of how much or how little the firm borrows since ordinary shareholders' claims are always riskier than lenders' claims.

The introduction of debt capital results in agency costs between managers and shareholders, as well as managers and loan holders (Pandey and Sahu, 2019). Excessive debt can have an adverse impact on the return on equity; hence equity investors are more concerned about the capital structure of their company. Increasing debt capital may increase operational risk and interest expense rates. As interest paid on debt is deducted from taxable income before other expenses, debt is attractive from a tax perspective (Akhtar et al., 2019). Over-reliance on debt, though, may spell disaster for firms (Meshack et al., 2020).

According to Sukma et al. (2022), leverage is the key to enhancing corporate performance since external debt financing is so crucial to boosting organisations' future productivity and, hence, growth. According to Lee (2021), debt financing positively or negatively impacts a firm's performance owing to diverse industrial histories, existing economic conditions, and other macroeconomic variables. Including debt in a capital structure to

attain its optimum level by lowering the weighted average cost of capital may boost company value (Murphy, 2018). Groomann (2017) suggests that profits are inversely related to debt; therefore, as debt grows, business profitability drops, and vice versa.

However, specific industries exhibit the reverse pattern, demonstrating that lowering the debt ratio enhances profitability. Recent research demonstrates that the impact of long-term borrowing and equity on an organization's profitability has also been inconsistent. Ajibola et al. (2018) and Robert et al. (2020) find a positive correlation between long-term debt and financial performance, whereas Le and Phan (2017) and Opoku-Asante et al. (2022) find a negative correlation between long-term debt and financial performance. However, Usman (2019) found a weak to no correlation between long-term debt and financial performance.

Equity Financing

When a person or group invests money in a firm without receiving any kind of payback schedule in exchange for ownership, they are regarded to be providing equity capital (Jony, 2020). In terms of CS components, equity capital represents the ownership capital of the company. This is the company's perpetual capital, which cannot be withdrawn during its existence. Owners bear the majority of the risk but also reap the rewards. Their liability is limited to the amount of capital they have contributed. Again, equity capital is the portion of a firm's capital that is debt-free and represents ownership (Jony, 2020). Therefore, it is the amount contributed by the owners and typically consists of common share capital, preferred share capital, retained earnings, and reserves. Similar to debt providers, equity providers also receive dividends from the company's profits (Xiao et al., 2022). In situations where a company has limited revenue, it is prudent to use equity financing because obtaining debt and repaying it will be challenging (Xiao et al., 2022).

To enhance performance, managers reduce either long-term or short-term debt and boost equity financing. Since total equity is positively correlated with return on assets, the optimal equity financing mix can be determined by striking a balance between retained earnings and capital surplus (Achieng et al., 2018). Equity (owners' money) as a percentage of total assets is a common measure, equity capital indicates the percentage of a business organization's assets that are financed by the resources of its owners (Chandra et al., 2021). The empirical evidence indicates that small and medium-sized firms (SMEs) continue to find equity funding from inside their organisation to be the most reliable and preferred source of financing (Rosmayanti et al., 2017; Moradi and Paulet 2019; Lambey, 2021).

Following previous research, Park and Chun (2021) assert that if a company can get equity funding from inside, that is preferable since it does not dilute the owner-managers ability to make strategic decisions or cost the business anything. Internal resources, meanwhile, continue to fall short of what is needed to expand operations in the majority of companies due to low levels of investment capital and profitability, particularly in economies with underdeveloped external equity capital markets (Indah Sari and Rokhmania, 2020). Prior studies on the connection between equity and firm financial performance have produced contradictory findings. Sovaniski et al. (2020) and Mutua and Atheru (2020) both discover a negative relationship between equity and financial performance. Nevertheless, Robert et al. (2020) and Senan et al. (2021) discover a positive correlation between equity and firm financial performance as did Rahman et al (2019), whereas Perri and Cela (2022) discover a weak to a nonexistent relationship.

As managers are compensated based on asset size rather than profitability, they consider stock offerings as a means of expanding the business and providing incentives to develop beyond the firm's ideal scope (Lambey, 2021). Moradi and Paulet (2019) discover that

companies that have greater chances for investment and development tend to issue more stock rather than take on debt with interest payments. The best capital structure for a company is one that maximises tax advantages while mitigating the negative effects of financial stress, and this is what equity financing does for its owners (Bukair, 2019). Apart from debt, equity financing plays a critical role in the firm's capital structure. Increased acknowledgement and usage of stocks in funding investment projects in organisations may be attributed to the lower risk associated with equity financing compared to debt financing.

2.3 Theoretical Review

The section identifies and describes agency theory and pecking order theory as the guiding theoretical foundation for the study.

2.3.1 Agency Theory

Agency theory is frequently employed to illustrate how CG and CS are related (Fama 1980; Jensen and Meckling, 1976). According to agency theory, when ownership and control are separated, there is a conflict of interest between the principal and the agent which has an impact on how capital structure decisions are made (Agyei and Owusu, 2014). The typical agency conflict arises when management, directors, and shareholders all have competing interests (principals). When making decisions, the agents should consider the interests of the principals.

In practice, however, out of opportunism, management may disregard shareholder interests, resulting in agency costs for shareholders. (Jiraporn et al., 2012). Because debt financing may address agency problems by decreasing working capital and raising bankruptcy risk, corporate debt strategy is crucial for avoiding agency conflict between shareholders and management (Danso et al., 2019; Muttakin et al., 2020). The

relationship between controlling and minority shareholders also creates a conflict of interest. Minority shareholders may be deprived of their rights by major shareholders, creating severe agency issues. We choose agency theory in light of the aforementioned debate because the agency problem (the separation of ownership and control, or corporate governance), will influence the choice of capital structure. Consequently, we are examining whether corporate governance has an impact on the choice of capital structure.

2.3.2. Pecking Order Theory

The pecking-order theory is proposed by Stewart C. Myers and Nicolas Majluf in 1984. The Information Asymmetry theory is another name for this idea. According to the notion, if a company wants to finance new investment projects, it should first use retained earnings, then move on to debt, and finally equity as a last resort. They assert that it is extremely difficult to determine the ideal capital structure if equity appeared at both the beginning and the end of this theory. If the business uses internal capital for investments, there is no requirement to disclose future financial information or pay flotation fees. According to Shariff Khan (2010), if and only if the company accepts such possible investments, the potential investment possibilities and maybe the rewards from them are included in the firm's secret financial information.

The information asymmetry theory, also known as the pecking order theory, states a company's management often has more information about the company's financial goals (such as investment possibilities or stream returns) than the general public does, according to Odit and Gobardhun (2011). According to Myers (1984), businesses must first use internal resources, such as retained revenues, before turning to external sources if necessary. This is known as the pecking order theory, which states that the company should first use its retained earnings, or internal funds, before turning to debt and, if those funds are insufficient, issuing stock (Myers, 1984). The Static Trade-off theory, which is

stated earlier, is incompatible with this theory (e.g., there is a negative association between profitability and debt).

2.4 Empirical Review

This section provides the relationship between the constructs by reviewing the literature on the findings from earlier related studies. The relationships included corporate governance and capital structure determinants and how ownership characteristics influence corporate governance and capital structure.

2.4.1 Corporate Governance and Capital Structure Determinants

Panda, et al. (2020) investigate the factors affecting capital for Indian manufacturing enterprises. To determine the main factors influencing capital structure, the study employs panel semi-parametric and nonparametric regression models. Tangible assets, effective tax rate, growth potential, non-debt tax shield, profitability, cash flow, firm size, government borrowing, overseas investment, economic growth, and interest rate are all shown to have a significant bearing on the debt levels of the analysed entities. The study suggests that more research should focus on how ownership structure and capital structure affect business operations.

Vu et al. (2020) investigate the determinants of corporate governance in Vietnam. A total of 1583 observations are gathered from 336 enterprises with shares listed on the Ho Chi Minh City Stock Exchange in Vietnam. Pooled OLS regression, the fixed effects model, and the random effects model are utilized to evaluate the data. The findings find that board size, state ownership, and concentrated ownership all have a favourable impact on the firm's CS, but foreign ownership appears to have a negative impact.

2.4.2 Ownership Characteristics and Their Influence on Corporate Governance and Capital Structure

Rashid (2020) researches to investigate the function of corporate board characteristics in mediating the link between ownership structure and company performance in Bangladesh's listed public limited businesses. The study examines 527 annual reports of listed firms in Bangladesh from 2015 to 2017. AMOS 23 is used to examine the data. According to the data, foreign ownership and director ownership have a considerable beneficial effect on both accounting and market-based business performance, but institutional ownership has a favourable influence mainly on accounting-based performance (return on assets). In investigating the hypothesized association among the variables, the study is limited to only three years of data.

Feng et al. (2020) examine the link between CG, ownership structure, and CS. From 2014 to 2018, the study uses a panel data set of 595 firm-year observations from a unique and comprehensive data collection of 119 Chinese real estate listed businesses. The data are analyzed using fixed effect and random effect regression analysis approaches in the study. According to the findings, the board size, ownership concentration, and company size all have favourable effects on capital structure. The study suggests that future research analyzes capital structure utilizing various arrangements, including face-to-face meetings with the firm's directors and shareholders.

2.4.3 Country-Specific Characteristics and Capital Structure

Saif-Alyousfi et al. (2020) use a dataset of Malaysian enterprises to study the drivers of capital structure. A panel data analysis of 8,270 observations from 827 listed non-financial enterprises on the Malaysian stock exchange from 2008 to 2017 is employed. Profitability, growth potential, tax benefits, liquidity, and cash flow volatility all have a negative and substantial influence on debt metrics, according to the findings. The study

advises that future research should look into other country-specific characteristics that influence a firm's capital structure.

Khan et al. (2020) evaluate the most important elements influencing commercial banks' capital structures in Saudi Arabia. The research analyzes yearly data from 11 commercial and national banks listed on the Tadawul Saudi stock exchange from 2010 to 2017. The data are analyzed using pooled ordinary least squares regression with fixed and random effects. The study's findings indicate that Saudi banks are heavily leveraged, supporting the notion that the nature of banks' operations differs from that of non-banking enterprises. Future research should include a thorough examination of all banks operating in Gulf Cooperation Council (GCC) nations.

2.4.4 Efficiency, Sustainability Reporting and Capital Structure choices

Bolarinwa et al., (2020) focus on the factors that determine the capital structure and the rate at which capital structure choices are altered by Nigerian businesses. The study uses the difference GMM, system GMM, and stochastic frontier analysis as its three methodologies (SFA). The findings demonstrate that the capital structure choices made by Nigerian businesses are influenced by the effectiveness of the organization. However, in the context of Nigerian businesses, short-term debt adjusts more quickly. The study suggests that future research may look at other efficiency metrics, such as cost and production efficiency.

Goh et al. (2018) investigate the factors of CS for Malaysian manufacturing enterprises. From 2011 to 2014, 174 Malaysian industrial businesses listed on the Bursa Malaysia were investigated. In the data analysis, a firm fixed effect with a robust standard was applied. Firm leverage has a negative relationship with firm profitability and non-debt tax shield.

Amidjaya, et al. (2019) carries out a study to investigate the impact of corporate governance (CG) and ownership structure on sustainability reporting in Indonesian listed banks. Panel data regression is used to evaluate the data using balanced panel data, which has 155 observations from 2012 to 2016. The results demonstrate that Indonesian listed banks still have a poor level of sustainability reporting. Family ownership, foreign ownership, and CG all have a beneficial impact on sustainability reporting. To improve the quality of future research projects, the mixed method may be used to combine quantitative and qualitative approaches.

Zaid et al. (2020) look at the link between board characteristics and a company's financing decisions for non-financial listed enterprises in Palestine and how the gender diversity level influences and modifies the previous relationship. On a panel of data, multiple regression analysis is employed. The results demonstrate that all explanatory factors in the research model had a substantial effect on the firm's financing decisions. Future research might provide different results in other nations, particularly in established markets, the report said.

2.4.5 Macroeconomic Uncertainty, Corporate Governance and Capital Structure

Chow et al., (2018) investigate how corporate governance influences the link between macroeconomic uncertainty and business capital structure. During the years 2004-2014, this study uses a two-step system generalized technique of moment's regression on a sample of 907 listed non-financial enterprises from seven Asia Pacific nations. The findings indicate that the overall effect of macroeconomic uncertainty on capital structure is notably unfavourable for enterprises with higher governance quality. According to the

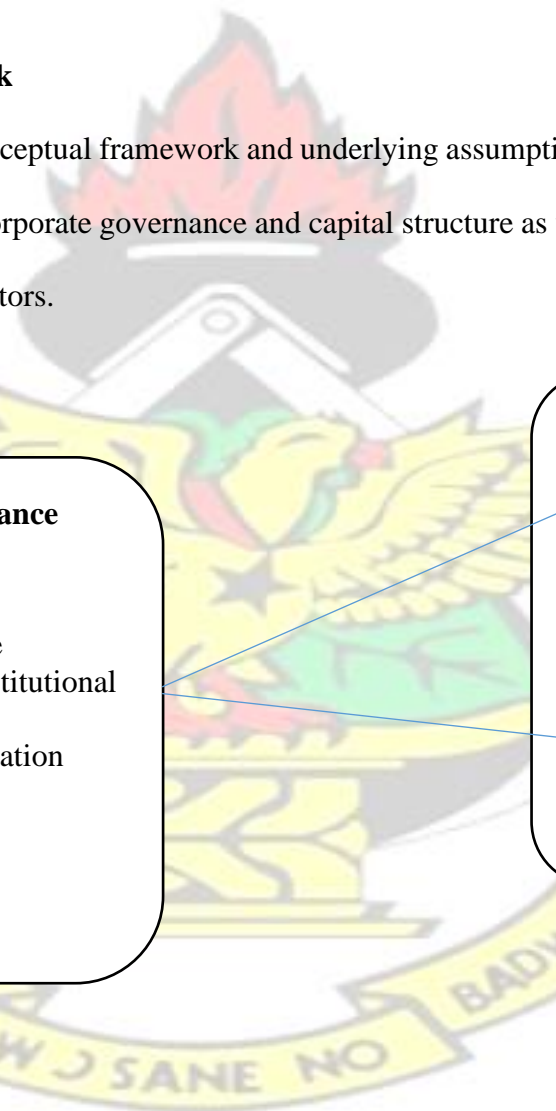
study, policymakers may develop suitable measures to alleviate the negative consequences of macroeconomic uncertainty.

Sewpersadh et al. (2019) investigate the association between corporate governance and the utilization of debt financing in JSE-listed firms. From 2011 to 2016, the study examines 713 annual reports in an imbalanced panel of 130 JSE-listed businesses over six years. The generalized two-step difference approach of moment's estimation mode is employed. The findings reveal that corporate governance procedures and business-specific characteristics such as profitability, firm size, and firm age had a considerable effect on JSE-listed firms' capital structure decisions. Future studies should be conducted to determine if organizations have a formal capital-structure policy.

Bajaj et al. (2020) investigated the literature on CS theories over the previous 21 years in order to identify current gaps and topics for potential scholars on this subject. A total of 183 papers published in the Scopus database between 1999 and 2019 with CS theory and leverage as keywords are evaluated on various levels. Citation analysis is also carried out in order to identify influential authors and articles. The findings indicated that, while capital structure research studies were initially concentrated on developed economies, research studies in emerging markets have increased over time. In the future, capital structure studies should be more industry-specific.

Sanil et al. (2018) evaluate the influence of different company sizes on the link between capital structure variables and leverage across Malaysian listed consumer goods businesses from 2006 to 2015. Data are obtained from 108 businesses. The pooled OLS and fixed effect analysis techniques are employed. The data demonstrate that all factors are significant across all business sizes. More research should be undertaken in other industries in Malaysia, according to the report, to ensure more accurate results.

study, capital structure is so significant



Conceptual framework and underlying assumptions
Corporate governance and capital structure as
factors.

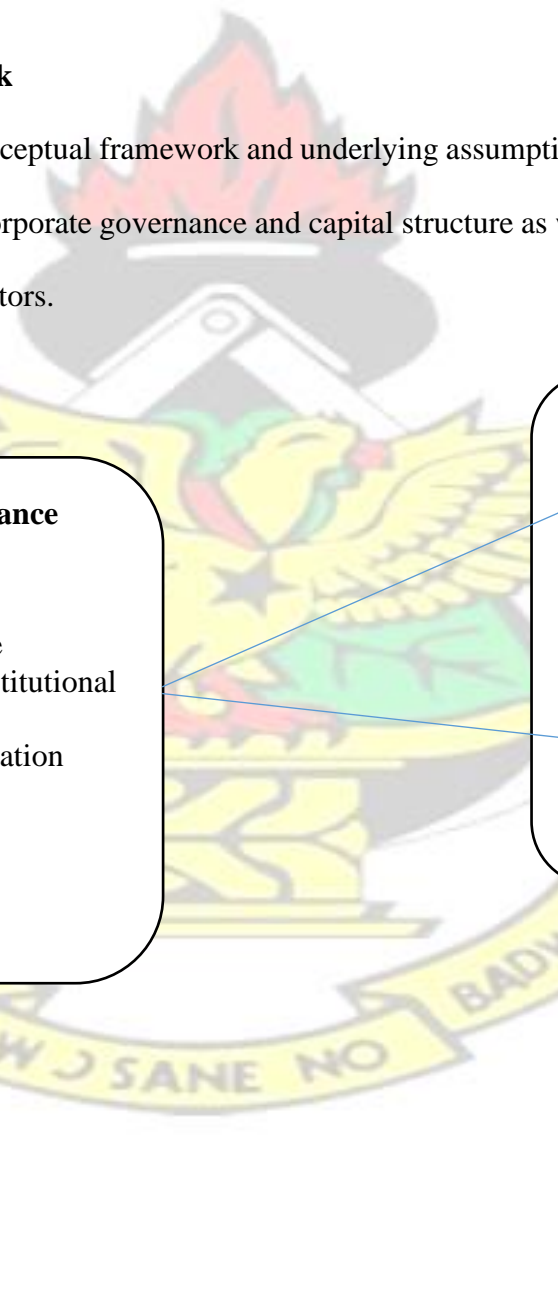
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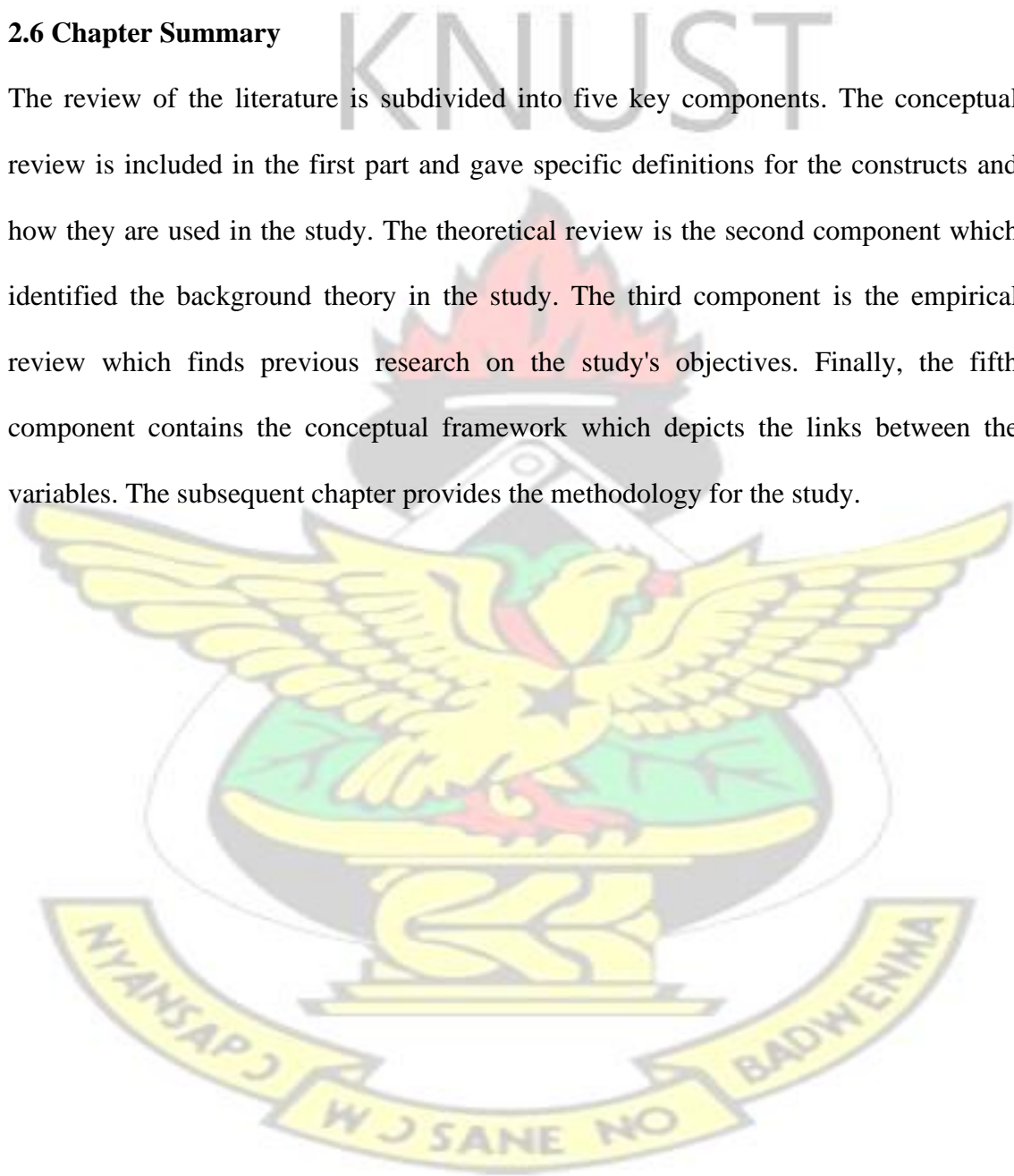


Framework

H1: Board size has a significant positive influence on capital structure (Debt and Equity)
H2: Board independence has a significant positive influence on capital structure (Debt and Equity)
H3: Managerial and institutional ownership has a significant positive influence on capital structure (Debt and Equity)
H4: Ownership concentration CEO duality has a significant positive influence on capital structure (Debt and Equity)

2.6 Chapter Summary

The review of the literature is subdivided into five key components. The conceptual review is included in the first part and gave specific definitions for the constructs and how they are used in the study. The theoretical review is the second component which identified the background theory in the study. The third component is the empirical review which finds previous research on the study's objectives. Finally, the fifth component contains the conceptual framework which depicts the links between the variables. The subsequent chapter provides the methodology for the study.



CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter details the applicable methodology, methods, tools, and techniques employed to attain the aims of the study. It is organized into five subsections including research design, data, methods, and model specification. The chapter also outlines the requisite diagnostic tests on the models specified. It again gives a clear description and measurement of the variables under study. This chapter concludes with a summary of the chapter content.

3.1 Research Design

The plans and road map that governs the conduct of the entire research process is referred to as the research design. It outlines a cohesive and succinct framework used to solve research problems by indicating the data collection procedures, analysis, interpretation, and discussion as well as the presentation of the results (Edubirdie, 2022). The design of good research stems from three factors; the research paradigms and research methods (Kelly, Dowling and Millar, 2018; Saunders et al., 2017). Therefore, the positivism paradigm guides the worldview of the research as it set out to search for answers to the study questions. Positivism is built on objectiveness where the reality is assumed to be one that is gotten by employing quantitative methods such as statistical methods to unveil the reality (Kelly, Dowling and Millar, 2018). Based on this, the quantitative method is deemed appropriate for the study.

The major research designs, according to Edubirdie (2022) are three; experimental or exploratory, explanatory and descriptive. Thus, the explanatory design is used in this study. This design is fit for studies where the answers to the research questions require

explanations of the existing link between the study variables (Saunders and Thornhill, cited by Tafa and Worku, 2022). Also, the explanatory designs are very useful when the study aims to find out whether or not there is any association between variables (Creswell and Creswell, 2017). Since this study examines the association between CG and the CS of listed manufacturing firms, the explanatory or causal research design is pertinent.

3.2 Data

The gathered facts, information and statistics necessary to conduct an inquiry define the term data. There are basically two sources of data; primary and secondary. Primary data are the information that is obtained directly from the research participants through survey, observation, focus group discussion or census (Mylonas, 2018). The secondary data on the other hand is obtained from secondary sources, and it is already gathered data. The secondary data is used in this study. Hence, the data is extracted from the annual reports and financial statements of the manufacturing firms sampled for the study. These firms are Ayrton Drug Manufacturing Limited, Guinness Ghana, Sam Woode, Camelot Ghana Ltd, Cocoa Processing Company Ltd, PZ Cussons Ghana (PZ), Stawin Products Ghana (SPG), Ghana Oil Company, Clydestone Ghana, Produce Buying Company (PBC), Unilever Ghana, Fanmilk, Mechanical Lloyd, Benso oil palm plantation, Total petroleum Ghana. The study was conducted over a period of 14 years; that is from 2005 to 2018.

This combination of time-series and cross-sectional data gathered from the various manufacturing firms necessitated the study to adopt the panel data type. The advantages of this data type over the cross-sectional and time-series are described by Gujarati (2012) as being more efficient in estimation than the time-series and cross-sectional data sets. Panel data also has the tendency to produce models that have more accurate parameters, less collinear with more degrees of freedom because it enables researchers to use more data points (Hsiao, 2014, pp. 4-5). Also, models that use panel data are free from the

issues of variable omission (Hsiao, 2014, p. 6). Panel data also allows researchers to explain the dynamic economic characteristics of the individual research unit (Tsionas 2019).

3.3 Methods

The methods of research encompass all the specific micro-level approaches and procedures adopted for data gathering, analysis, and interpretation (Onwuegbuzie and Frels, 2015; O'Leary, 2010, p.49). The study employs the quantitative method. As such, the data gathering, analysis and interpretation constituted entirely numeric values so as to enable the researcher to predict and quantify the research problem numerically. To find the relationship between firm-level variables and the capital structure of manufacturing firms, the dynamic panel regression methods are deemed appropriate as far as the study objectives are concerned.

The variables used in the method of estimation are grouped into dependent, independent, and control variables. The dependent variable is capital structure, the independent variables are corporate governance, and the firm-specific variable constituted the controlled variables. However, the interaction of firm-level variables is not always spontaneous. Thus, when the OLS model is applied, the study will suffer from the problem of endogeneity. The OLS estimation with panel data does not always produce consistent estimates due to high serial correlation (Tsionas 2019).

Tsionas (2019) therefore posit that the instrumental variables, specifically the Generalized Method of Moment (GMM) are suitable when correcting the problem of endogeneity. This model incorporates the one-period lags of the independent variables as instrument variables to rid of the endogeneity as propounded by Aralleno and Bond (1991). However, Blundell and Blond (1998) aver that taking the one-period lag of

differenced variables may result in a poor instrument, especially with a highly persistent model. Thus, they suggested the combination of the two; using the one-period lag of the variables at their levels forms, and taking one-period lag at their first differenced forms. Therefore, the two-staged efficient GMM model is used to unravel the issues of endogeneity and to efficiently answer the research questions. Also, the GMM was qualified to be used because the number of study observations (manufacturing firms) is greater than the number of the study period (Phillips, 2019).

3.4 Model Specification

The empirical model for this study was specified in equation (1)

$$\begin{aligned} &CapitalStructure_{i,t} \\ &= f(Corporate\ Governance_{i,t}, Control\ variables, \varepsilon_{i,t}) \dots \dots \dots (1) \end{aligned}$$

Based on the GMM estimation, equations (2) and (3) are estimated to represent both the long-run and short-run capital structure of the firms.

$$\begin{aligned} LDAR_{i,t} = & \beta_0 + \beta_1 LDAR_{i,t-1} + \beta_2 BSize_{i,t} + \beta_3 BINDEP_{i,t} + \beta_4 CEODual_{i,t} + \beta_5 ROA_{i,t} \\ & + \beta_6 OWCO_{i,t} + \beta_7 ManOwn_{i,t} + \beta_8 INST_{i,t} + \beta_9 TANG_{i,t} + \beta_{10} CC_{i,t} \\ & + \beta_{11} BS_{i,t} + \delta T + \varepsilon_{i,t} \dots \dots \dots (2) \end{aligned}$$

$$\begin{aligned} SDAR_{i,t} = & \beta_0 + \beta_1 SDAR_{i,t-1} + \beta_2 BSize_{i,t} + \beta_3 BINDEP_{i,t} + \beta_4 CEODual_{i,t} + \beta_5 ROA_{i,t} \\ & + \beta_6 OWCO_{i,t} + \beta_7 ManOwn_{i,t} + \beta_8 INST_{i,t} + \beta_9 TANG_{i,t} + \beta_{10} CC_{i,t} \\ & + \beta_{11} BS_{i,t} + \delta T + \varepsilon_{i,t} \dots \dots \dots (3) \end{aligned}$$

Where; $LDAR_{i,t}$, $SDAR_{i,t}$ are the dependent variables, representing long-term and short-term debt-to-assets ratios of firms i at time t respectively. The $BSize_{i,t}$ $BINDEP_{i,t}$, $CEODual_{i,t}$, $OWCO_{i,t}$, $ManOwn_{i,t}$, $INST_{i,t}$ denote size of board of directors, independence of the board, CEO duality, largest ownership composition, management share ownership and institutional share ownership of firms i at time t respectively. The three control variables are represented as; $TANG_{i,t}$, $CC_{i,t}$, $BS_{i,t}$ $ROA_{i,t}$, denoting tangibility, cost of capital, bank size and return on assets respectively. The time dummy is represented as δT with the error term as $\varepsilon_{i,t}$. $SDAR_{i,t-1}$ and $LDAR_{i,t-1}$ are the first differences between the short-term and long-term debt-to-assets ratios of firm i at time $t-1$.

3.4.1 Diagnostics Testing

Even though panel analysis is more efficient and consistent than the cross-sectional and time-series analysis, however, the model is susceptible to disturbances because a host of different firm-level variables are obtained from heterogenous firms at varied time periods. As a result, some post-estimation diagnostic tests are such as normality, serial correlation, etc. needed for validity checks (Moyi, 2018).

1. Instrument Validity Tests

To test for the statistical validity of the instruments used in the system GMM model, the Hansen and Sargan test for over-identifying restrictions is used. The hypotheses that are tested are

H_0 : Instruments are valid

H_1 : Instruments are not valid

Failure to reject the null hypotheses means the instruments are valid for both Hansen and Sargan tests (Prob<0.05).

2. Autocorrelation/Serial correlation Test

The study also tests for the serial correlation of the error terms in both first-order and second-order serial correlation as:

AR(1)= reject the null hypothesis of no autocorrelation (Prob<0.05)

AR(2)=accept the null hypothesis of no autocorrelation (Prob >0.05).

When the AR(2) is greater than 0.05, then the study will conclude that there exists no serial correlation.

3.5 Variables Description

Variables	Description	Measurement and sources	A priori sign
Dependent			
Capital Structures (CS)	1. Short-term debt-to-assets ratio (SDAR)	1. Short-term debt of firm divided by firm assets	
	2. Long-term debt-to-equity ratio (LDAR)	2. Long-term debt divided by firm assets	
Independent Variables			
Corporate Governance (CG)	1. Board size (BSize)	1. Total number of directors on firm's board	+/-
	2. Independence (BINDEP)	2. The number of independent Non-executive directors on the firm's board	
	3. CEO duality (CEODual)	3. Dummy variable: where 1 is assigned when the CEO is the same as the board chairperson.	
	4. Ownership concentration	4. Concentration of shareholders	
	5. Management ownership (ManOwn)	5. Value of shares owned by management	
		6. Value of shares owned by the institution	

6. Institutional
ownership (INST)

		Control Variables	
Firm-specific Variables	1. Return on assets (ROA)	1. $\frac{\text{Net Profit}}{\text{Total Assets}} \times 100$	+/-
	2. Cost of capital (CC)	2. Expenses on bank capital	
	3. Tangibility (TANG)	3. $\frac{\text{Tangible Assets}}{\text{Total Assets}}$	+/-
	4. Bank size (BS)	4. Natural logarithm of total assets	

Authors' construct (2023)

3.6 Chapter Summary

Chapter three covers the methodology and methods used to conduct the research. The study opts for a quantitative methodology to get at the study's stated goals. In essence, the explanatory research design is used. The study objectives are evaluated using secondary data obtained from audited annual reports and financial statements of the firms included in the study. A total of 15 GSE-listed non-financial firms are used for the study over 13 years (from 2005 to 2018). This chapter also outlines GMM as the specified model appropriate to guide the data analysis section of this study. The necessary diagnostic tests such as normality, homogeneity, and serial correlation tests are conducted. The variable is described, and the measurements or calculation formulas are outlined.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter addresses the presentation and interpretation of the results of the research analysis. Following are variable descriptions, correlations between variables, diagnostic tests, and model estimates. This is followed by a discussion of the findings in the context of current literature and theories.

4.2 Descriptive Statistics

Descriptive statistics are chosen because they enable data to be summarized based on frequency and percentage. Using frequency and percentage distributions, descriptive statistics gives researchers confidence and insight into the nature of their raw data (Garson, 2012). Danso et al. (2019) argue that researchers can also utilize other types of descriptive statistics such as histograms, box plots, frequency polygons, bar charts, pie charts, and scatter diagrams to elaborate on the ideas behind their studies. The researcher in this study, however, made use of measures of central tendency (mean, coefficient of variation (CV), and standard deviation) to classify the variables.

Table 4. 1: Descriptive Statistics

(The sample size is 15 manufacturing firms in Ghana with 210 observations)

Variables	Mean	Std. Dev.	CV	Observation
BSize	14.381	5.261	0.366	210
BINDEP	9.871	9.435	0.955	210
CEODual	0.155	0.003	0.019	210
OWCO	5.413	1.387	0.256	210
MAOWN	1.193	0.053	0.044	210
INSOWN	1.759	0.579	0.322	210
ROA	1.517	2.76	1.819	210
CC	0.2587	0.3776	1.459	210
FSIZE	2.9172	0.1390	0.047	210
TANG	0.3819	0.5139	1.345	210
SDAR	0.9351	0.2732	0.292	210
LDAR	0.6275	0.3814	0.608	210

Source: Authors computation (2023): NB. “Where *BSize* is the board size, *BINDEP* is the board independence, *CEODual* is the CEO duality, *OWCO* is the ownership concentration, *MAOWN* is the managerial ownership, *INSOWN* is the institutional ownership, *ROA* is the return on assets, *CC* is the cost of capital, *FSIZE* is the firm size, *TANG* is the tangibility, *SDAR* is the short term debt to assets ratio, and short long debt to assets ratio (*LDAR*)”

Table 4.1 contains summaries for every criterion evaluated. The above table contains data for all dependent and independent variables including mean, standard deviation, coefficient of variation (CV), and several observations. The high value of the coefficient of variation indicates significant dispersion among the possible explanations. The average level of the short-term debt-to-assets ratio and the long-term debt-to-assets ratio is 0.9351 and 0.6275 respectively. A shocking difference between the companies' long-term and short-term debt is uncovered by the research.

This gap between the two types of debt shows that short-term debt is preferred by Ghanaian manufacturing businesses. This finding corroborates the theory put out by Sheikh and Wang (2011) and Saif-Alyousfi et al. (2020), which states that businesses choose short-term loans because of the high cost of long-term bank lending and the limited size of the bond market in the country. Notably, in Ghana, the non-security sector is considerably bigger than the security business. Established commercial banks, development finance institutions, and industry- and small-business-specific banks and institutions make up the rest of the non-securities market. These organizations (particularly privatized commercial banks) prefer to provide businesses with beneficial short-term loans rather than long-term risky loans because of the political and economic instability of the country. Corporations employ short-term debt to fund long-term investments for these reasons.

Board size has a mean of 14.381 and a standard deviation of 5.261, this suggests that big corporate boards contribute significantly to the financial performance of listed Ghanaian manufacturing firms, despite the agency theory's predictions that such boards would have

communication and coordination issues. According to the agency theory, a large number of board members may facilitate information sharing and decision-making inside the board. Large boards, according to this theory, are more prone to have communication problems and a breakdown in coordination, both of which may drive up agency costs (Abdallah and Ismail, 2017; Aguilera, Judge, and Terjesen, 2018). Board independence has a mean value of 9.871 and a standard deviation of 9.435, these results are comparable with those (Bhatt and Bhatt, 2017). As a result of their close working connection with the management, inside directors likely have fast access to a variety of information about the firm and its competitors and may provide advice that correctly represents the genuine state of affairs.

The study finds that both the inside and outside members of a corporate board play essential roles in boosting an organization's value based on the beneficial impacts of both types of directors on the financial performance of the firm in Ghana. CEO Duality has a mean value of 0.155 and a standard deviation of 0.003. Because of this, duality allows for both the streamlined direction of a single leader and the rapid adaptation to changing conditions. Furthermore, the CEO's discretion is enhanced by duality since it provides a larger power base and control point (Bolarinwa et al., 2020). Disputes between shareholders and management may be reduced, according to the agency theory. As a result, the Chief Executive Officer (CEO) is largely responsible for formulating and enforcing strategic decisions (decision management),

4.3 Correlation Analysis

The correlation establishes a relationship between the dependent and independent variables. In addition, it searches for and identifies potential multicollinearity between any of the study's independent variables. Table 4.2 summarises the correlation results for several of the factors that contribute to firm value. The correlation coefficient quantifies

the strength and direction of the association between two variables. The absolute values of the coefficient indices indicate the magnitude of the relationship between the variables, while the sign (positive or negative) indicates the direction of the relationship. In addition, the correlation matrix reveals the possible multicollinearity of independent variables. In a situation where the independent variables are strongly correlated ($r=0.9$ or higher), it is impossible to separate the effects of the independent variable from the dependent variable. In other words, one of the predictor variables may be predicted almost perfectly by another predictor variable (Akuoko, Aggrey, and Arhen, 2020; Agyekumet al., 2016).

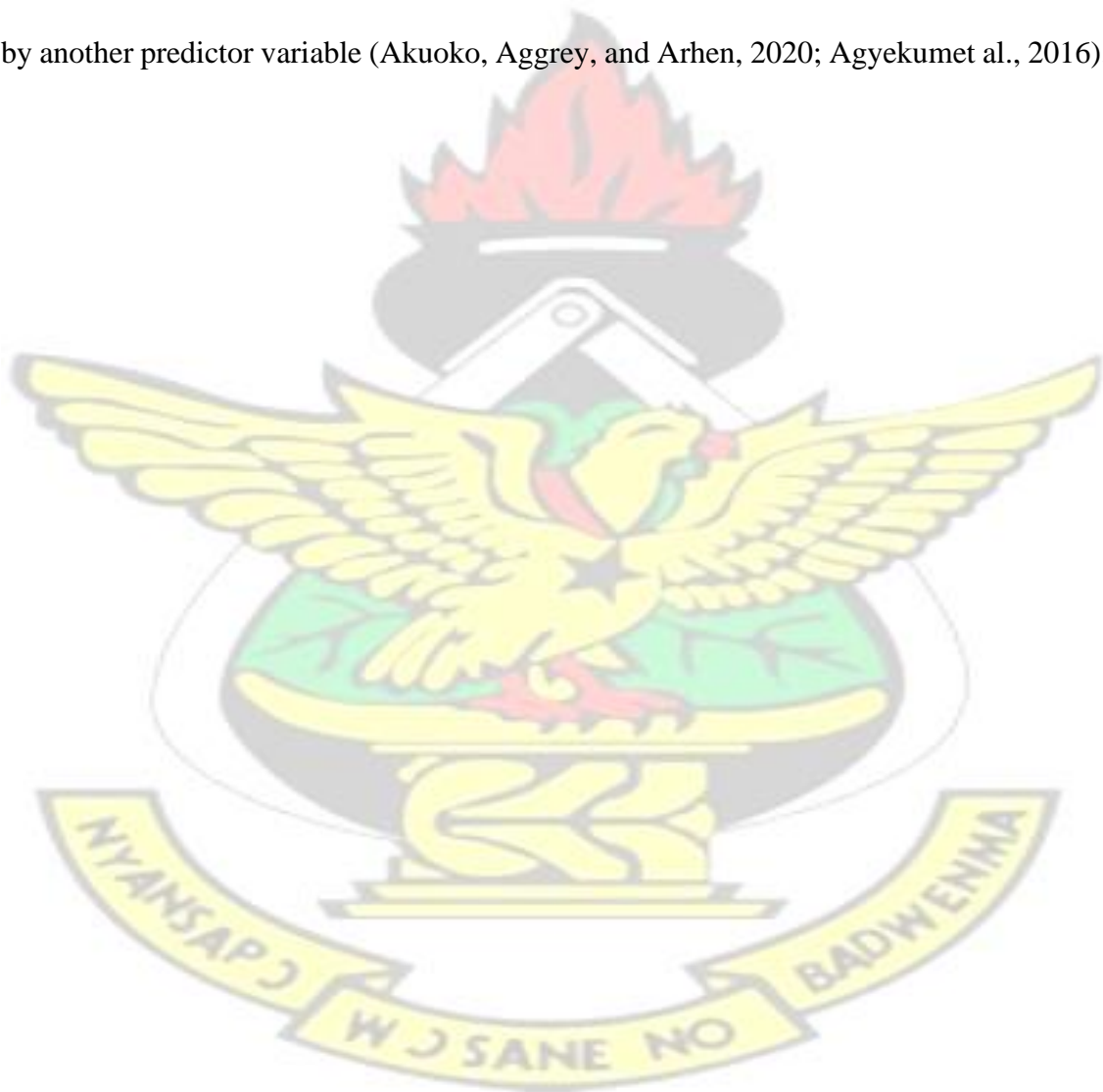


Table 4. 2: Correlation Matrix

N Variables	1	2	3	4	5	6	7	8	9	10	11	12
1 SDAR	1											
2 LDAR	0.4781*	1										
3 CEODual	0.0298*	0.0944*	1									
4 OWCO	0.1442*	0.0994		1								
5 MAOWN	0.1360*	-0.0939	0.9988*	.2949*	1							
6 INSOWN	0.1809*	0.5214*	0.0428*	0.1939*	0.9839*	1						
7 ROA	-0.0398	0.9942*	0.0034	0.0280	0.2640*	-0.049*	1					
8 CC	0.0099	0.2839	0.2820*	0.1803*	0.0994*	0.035***	-0.040**	1				
9 FSIZE	0.3398*	0.0342	0.0594*	0.0438*	0.0928	0.052***	0.015*	0.024**	1			
10 TANG	0.0230	0.0334	.0489*	0.0440*	0.0442*	0.159***	0.045***	0.117*	0.009	1		
11 BSize	0.0209*	0.0484*	0.5639	0.0030	0.0473*	0.054***	0.009	0.070*	0.010	-0.002	1	
12 BINDEP	0.0849*	0.0294	0.3709*	0.0449*	0.091*	0.007*	0.021***	-0.095*	0.027**	0.014*	-	1

Source: Authors computation (2023): NB. “Where BSize is the board size, BINDEP is the board independence, CEODual is the CEO duality, OWCO is the ownership concentration, MAOWN is the managerial ownership, INSOWN is the institutional ownership, ROA is the return on assets, CC is the cost of capital, FSIZE is the firm size, TANG is the tangibility, SDAR is the short term debt to assets ratio, and short long debt to assets ratio (LDAR)”

The results of the examination of the correlations are shown in Table 4.2. Some of the highlights of the Table are as follows: In contrast to the common perception that larger businesses may more easily issue debt because they have more assets to pledge as collateral, the debt-to-asset ratio tends to increase when a company expands in size. Companies of this size are in a stronger position to negotiate favourable terms for debt funding with their financial institutions. Given that most Ghanaian manufacturing firms follow the prudential criteria set out by the country and engage in very conservative lending practices, the existence of this negative correlation may not come as a complete surprise. Debt-to-asset ratios are positively correlated with both management's ownership of the firm and the company's asset structure, suggesting that insider ownership and tangibility increase the proportion of debt financing in the capital structure of corporations. One possible explanation for the correlation between the debt-to-asset ratio and management ownership is the aversion to risk on the part of the management team.

Saif-Alyousfi et al. (2020) and Khan et al. (2020) show that board size and ownership concentration significantly affect the capital structure choices of enterprises, and their findings are corroborated by the positive correlation between the debt-to-asset ratio and these factors. Additionally, the debt-to-asset ratio is positively related to CEO duality which runs counter to the management entrenchment idea.

According to this idea, the capital structure of a company will have less debt if its chief executive officer (CEO) has a high degree of influence since managers will be more likely to act opportunistically. Plus, the leverage ratio is negatively related to profitability, which agrees with the pecking order theory that businesses should first look to their resources before turning to external sources of funding like loans. However, it has a negative

correlation with the firm's asset structure, a measure of tangibility, indicating that the presence of tangible assets in the asset structure reduces the profitability of the business. The results of the correlation analysis show a negative link between managerial ownership and board size, lending credence to the argument that management may exert pressure on the board to have non-executive members excluded. Institutional ownership is positively correlated with the board composition variable, which suggests that the presence of institutional shareholders may encourage the selection of non-executive board members.

The results of the correlation analysis also show that the cost of capital is favourably related to the risk faced by businesses. Further, it is inversely related to the debt-to-asset ratio, indicating that the weighted average cost of capital decreases with rising leverage. This inverse correlation is consistent with the findings of Sovaniski et al. (2020) and Mutua and Atheru (2020), who argue that having a lot of debt in the capital structure encourages companies to implement open-book practices, which lowers the cost of capital for such companies. Cheng and Courtenay (2019) argue that a higher percentage of independent directors on the board will boost the firm's voluntary disclosure practices, resulting in a reduced cost of capital, and therefore find a negative link between board composition and the weighted average cost of capital.

Furthermore, the correlation matrix identified the potential multicollinearity of independent variables. In a circumstance in which the independent variables are strongly linked ($r=0.9$ or more) such that it is impossible to disentangle the effects of the independent on the dependent variable. In other words, one of the predictor variables may be predicted with near-perfect accuracy by another predictor variable (Lambey, 2021; Bukair, 2019).

4.4 Diagnostic Test

Before the model is estimated, a diagnostic analysis is done to determine its appropriateness and robustness. Some assumptions that need to be conducted in a panel regression analysis to establish the impact of corporate governance on the firm value of publicly traded companies in the manufacturing sector are summarized in Table 4.3. The table presents three pre-diagnostic and post-analysis tests. The panel unit root test is used to test for the assumption of stationarity in the panel data using the Levin-Lin-Chu Unit-Root Test. This is required before the estimation of the model. The null hypothesis for the Levin-Lin-Chu Unit-Root Test is non-stationarity. The results of the test indicate that the variables included in the panel data are stationary at a 5% level of significance ($Z=-2.634$, $p\text{-value}=0.0192$).

Table 4. 3 Diagnostic Test

Fixed-Random Effect		Heteroscedasticity		Panel Unit Root Test	
Hausman Test		studentized Breusch-Pagan test		Levin-Lin-Chu Unit-Root Test	
P-value	11.945	BP	19.281	Z	2.634
Chi-square	0.595	P-value	0.819	P-value.	0.0192

Source: Authors Computation (2023)

The regression of the independent variables (board size, Ownership concentration, Management ownership, institutional ownership, CEO duality, board independence, tangibility, ROA, firm size, and cost of capital) as a determinant of capital structure is performed and tested for robustness. By considering the heteroscedasticity of the regression model using the studentized Breusch-Pagan test one can see that the residual analysis shows a constant variance of the error. This is because the studentized Breusch-Pagan test has the

null hypothesis as errors are constant (homoscedasticity of error), and the resulting p-value of 0.819 is greater than 0.05. Thus, the model presented is robust for the analysis.

4.5 Regression Analysis

To determine the relationship between corporate governance and the capital structure of manufacturing firms, dynamic panel regression techniques are deemed suitable for the study's objectives. The variables utilized by the estimation method are classified as dependent, independent, and control variables. The dependent variable is capital structure, the independent variables are corporate governance, and the controlled variables are firm-specific variables. However, the interaction between variables at the firm level is not always spontaneous. Thus, when the OLS model is applied to the study, endogeneity will be a problem. Due to high serial correlation, the OLS estimation with panel data does not always produce consistent estimates (Tsionas 2019). Tsionas (2019) argues that instrumental variables, specifically the Generalized Method of Moments (GMM), are appropriate for addressing the endogeneity issue.

As proposed by Arellano and Bond (1990), this model incorporated the one-period lags of the independent variables as instrument variables to eliminate endogeneity. Blundell and Poon (1998) assert, however, that taking the one-period lag of differenced variables could result in a subpar instrument, particularly when a model is highly persistent. Consequently, they proposed a combination of the two, utilizing the one-period lag of the variables at their level forms and the one-period lag of their initial differenced forms. Consequently, the two-staged efficient GMM model is utilized to decipher endogeneity issues and efficiently answer

research questions. In addition, the GMM is applied because the number of study observations (manufacturing firms) exceeded the number of study periods (Phillips, 2019).

Table 4. 4 GMM Estimation for Long-Term Debt-To-Assets Ratio

Variable	Two-step difference GMM	Two-step system GMM
$LDAR_{t-1}$	-0.0254*** (0.0067)	-0.0184** (0.0085)
CEODual	0.0206*** (0.0064)	384*** (0.0227)
OWCO	0.0446 (0.2110)	0.0446** (0.0227)
MAOWN	-0.267*** (0.0623)	-0.239*** (0.0719)
INSOWN	0.0131*** (0.0034)	0.0212*** (0.0073)
ROA	0.0186*** (0.0063)	0.0214** (0.0091)
CC	-0.0208** (0.0089)	-0.0954*** (0.0295)
FSIZE	0.0383** (0.0146)	0.0418** (0.0178)
TANG	-0.0457** (0.0182)	-0.0360** (0.0182)
BSize	0.0518** (0.0248)	.0141*** (0.0032)
BINDEP	0.0145** (0.0055)	0.0105* (0.0055)
AR(1) p-value	0.006	0.047
AR(2) p-value	0.209	0.529
Hansen's J χ^2	0.607	0.610
p-Hansens	0.481	0.291

Source: Authors computation (2023): NB. “Where BSize is the board size, BINDEP is the board independence, CEODual is the CEO duality, OWCO is the ownership concentration, MAOWN is the managerial ownership, INSOWN is the institutional ownership, ROA is the return on assets, CC is the cost of capital, FSIZE is the firm size, TANG is the tangibility, SDAR is the short term debt to assets ratio, and short long debt to assets ratio (LDAR)”

There is a statistical effect of CEO duality on the short-debt ratio and the long-term debt ratio of the manufacturing firms in Ghana. Also, the results show that the outside director coefficients are positively related to the short debt to assets and long debt to assets ratios, and are statistically significant. This research demonstrates that a board with a higher

proportion of independent members is more likely to exercise vigilant oversight of management, which in turn leads to the latter being compelled to make decisions that maximize shareholder value.

A company's ability to borrow money on favourable terms and take advantage of tax shelters is bolstered when an independent board of directors is in place. Because of the country's limited and undeveloped bond market, commercial banks and development financial institutions provide the vast majority of Ghanaian enterprises with their working capital needs. Additionally, many banks find it beneficial to provide preferential loan terms to enterprises with more independent directors as a result of excellent monitoring. Previous studies, including those by Achieng et al. (2018), Aziz and Abbas (2019), Rosmayanti et al. (2017), and Pfeffer (2019), all find a positive correlation between outside directors and capital structure.

Table 4. 5 GMM Estimation for Short-Term Debt-To-Assets Ratio

Variable	Two-step difference GMM	Two-step system GMM
$SDAR_{t-1}$	0.0541*** (0.0039)	0.0758* (0.0426)
CEODual	0.0201*** (0.0071)	0.0299*** (0.0084)
OWCO	0.0171 (0.0120)	0.0443 (0.0328)
MAOWN	-0.0249*** (0.0073)	-0.0301*** (0.0082)
INSOWN	-0.0257*** (0.0069)	-0.0295*** (0.0079)
ROA	0.236*** (0.0611)	0.249*** (0.0627)
CC	0.0121*** (0.0035)	0.0541*** (0.0039)
FSIZE	0.0177*** (0.0064)	0.0201*** (0.0071)
TANG	0.0383** (0.0152)	-0.0532*** (0.0117)
BSize	0.0477** (0.0187)	0.0235* (0.0138)

BINDEP	-0.0609** (0.0289)	-0.0358** (0.0180)
AR(1) p-value	0.073	0.063
AR(2) p-value	0.470	0.509
Hansen's $J \chi^2$	0.781	0.773
p-Hansens	0.291	0.067

Source: Authors computation (2023): NB. “Where BSize is the board size, BINDEP is the board independence, CEODual is the CEO duality, OWCO is the ownership concentration, MAOWN is the managerial ownership, INSOWN is the institutional ownership, ROA is the return on assets, CC is the cost of capital, FSIZE is the firm size, TANG is the tangibility, SDAR is the short term debt to assets ratio, and short long debt to assets ratio (LDAR)”

There is a statistically substantial and beneficial correlation between the indices of ownership concentration and capital structure. Independent of tax benefits, this study demonstrates that block holders can require management to incur extra debt to minimize managerial opportunism. Table 4.1 displays descriptive data showing a high degree of ownership concentration among Ghanaian businesses, with only five persons holding a significant percentage of the issued shares (58.36 percent). A positive correlation exists between ownership concentration and capital structure, which is in line with findings by Akomeah et al. (2018), Olumuyiwa-Ganiyu et al. (2019), Robert et al. (2020), and Abdullah and Tursoy (2020).

Nonetheless, both the short-term and long-term debt ratios show a statistically significant correlation. This finding accords with the agency theory, which posits that a higher percentage of management ownership would better align managers' interests with those of outside shareholders and reduce the use of debt as a means to mitigate agency conflicts. More importantly, this finding shows that managers are less drawn to high levels of leverage because of the increased risk it poses to them relative to the risk taken by the general population. Management ownership has been shown to negatively correlate with capital

structure, corroborated by the findings of studies by Ajibola et al. (2018), Aziz and Abbas (2019), and Fosberg (2014).

Control variables in the estimation model have values that are compatible with well-recognized capital structure theories. The pecking order theory which holds that more ROA and less cost of capital companies prefer to borrow less than less profitable and less cost of capital companies is consistent with the negative and statistically significant correlations between profitability (ROA), cost of capital, and tangibility of this study results. The static trade-off theory, which argues that large corporations should borrow more so that they may better spread their risks and take advantage of interest tax deductions, is consistent with the observed positive correlation between company size and capital structure. The results show a negative correlation between asset tangibility and the total debt ratio, and a positive correlation with the proportion of long-term debt. Booth et al. (2018) confirm the conclusions reached in this study.

Results are supported by another research which found a similar connection between the sampled Pakistani firms. Bokpin and Arko (2019) find the same thing: a strong inverse correlation between the total debt ratio and the tangibility of assets for Ghanaian businesses. Long-term leverage is positively correlated with the tangibility of assets, which accords with the static trade-off model's supposition that safer, more intangible asset enterprises are less likely to borrow money. In addition, because the borrower's use of the funds is limited to the specified project, issuing loans secured by fewer assets may protect debtholders against the opportunistic actions of management. In theory, a positive association between the tangibility of assets and the total debt ratio would be expected. A theoretical justification for this result cannot be gleaned from this study.

4.6 Discussion

The effect of corporate governance regulations as determinants of capital structure among manufacturing companies in Ghana is still uncertain. In contrast to the agency theory, which contends that firms will perform better if there are corporate governance mechanisms to minimize agency conflict (Jebran and Chen, 2021), the stewardship theory suggests that firms will perform better due to trust and goodwill between executives and shareholders (Hsu, and Liao, 2021). Academics in developed countries have conducted the vast majority of research on the correlation between good corporate governance and capital structure but their interest has waned in recent years. This study uses data from publicly traded manufacturing firms in Ghana to assess corporate governance as a capital structure determinant in the context of a developing country.

4.6.1 The Effect of Board Size and Board Independence on Capital Structure

The study finds a positive relationship between board size and both total debt ratio and long-term debt ratio, which supports the resource dependence theory. This theory suggests that firms with larger boards are more likely to obtain external financing to expand their operations. The findings may indicate that in Ghana, where large boards are common, firms and development finance organizations are more confident in lending money to these firms. This study adds to a growing body of literature, including Davis and Mossessian (2019), Purba and Septian (2019), and Kyereboah-Coleman and Biekpe (2010), which also found a positive correlation between board size and capital structure. Furthermore, the study found that independent directors' coefficients have a significant positive association with both total debt ratio and long-term debt ratio.

This finding supports agency theory, which suggests that a board with a higher proportion of independent members is more likely to exercise vigilant oversight of management, pushing management to make decisions that maximize shareholder value. Independent board members can also increase a company's creditworthiness, enabling it to borrow more money at more favourable rates. The results of this study align with previous research, such as Khan and Ghayas (2020), Ayuba et al. (2019), Davis and Mossessian (2019), and Pfeffer (2019), which found a positive correlation between outside directors and capital structure.

Furthermore, the pecking order theory predicts that firms prefer internal financing over external financing due to the high costs associated with external financing. However, our findings suggest that firms with more independent directors are more likely to utilize debt financing, indicating that the influence of independent directors on the capital structure decisions of firms may override the preferences of the management team. In addition, the signalling theory suggests that firms use their capital structure decisions to signal their financial health to external stakeholders. Firms with stronger corporate governance mechanisms may be perceived as more financially healthy, allowing them to access debt financing on more favourable terms. This finding is consistent with previous studies that have found a positive relationship between corporate governance and the cost of debt (Adams et al., 2010; Yermack, 1996).

4.6.2 The Effect of Managerial and institutional ownership on Capital Structure

The study finds out that managerial and institutional ownership has a significant impact on a firm's capital structure choices. The incentive alignment effect theory posits that when management owns a greater proportion of a company's stock, they are less likely to act in their self-interest, which reduces the chance of bankruptcy arising from debt financing. The

findings are consistent with the results obtained by Agyei and Owusu (2018), Sheikh and Wang (2019), and Hassan and Butsan (2015), which show a positive relationship between managerial and institutional ownership and capital structure. Additionally, Melia's (2015) study demonstrates that the presence of management shares in a company's ownership structure has a greater beneficial influence on long-term debt than equity. This is attributed to the fact that the tax benefits offered by debt financing make it more appealing to managers. However, the risk of bankruptcy associated with debt financing serves as a major drawback.

Moreover, the study finds that institutional ownership enhances a company's access to long-term debt financing under favourable terms and conditions. This finding is consistent with Liao et al.'s (2015) research, which shows that corporations with independent boards, protection from CEO/Chair duality, and a large number of institutional shareholders increase their financial leverage and can alter their leverage ratio more swiftly. However, this does not corroborate the results obtained by Hussainey and Aljifri (2012), who establish a negative association between the presence of institutional investors and enterprises' debt financing. The difference may be attributed to the fact that in Pakistan, the largest institutional investors are not banks. The study also highlights the agency conflict caused by the separation of ownership and control, which can lead to opportunistic behaviour by management such as excessive borrowing and the growth of perks and pay schemes. This can increase the cost of capital and expose the firm to market risk. However, with the assistance of institutional investors and independent board members, disclosure requirements, monitoring and control methods, information asymmetry, and agency conflict may be improved.

The research of Purbawangsa et al. (2019), Pratiwi (2016), and Botosan and Plumlee (2002) has shown that transparency can lower the cost of debt and equity financing by bridging the knowledge gap between employees and outsiders. Additionally, Cheng and Courtenay (2006) assert that the presence of excellent external governance and an effective legal and regulatory framework is positively connected with the proportion of independent directors on a company's board and the level of voluntary corporate disclosures. The study confirms the negative influence of board composition, CEO duality, and institutional ownership on the capital structure choices of the sample firms, which is consistent with the hypothesis mentioned earlier.

4.6.3 The Effect of Ownership Concentration and CEO Duality on Capital Structure

There is a statistically substantial and beneficial correlation between ownership concentration and both the overall debt ratio and the long-term debt ratio. Several studies have found a significant and positive correlation between ownership concentration and capital structure, particularly concerning the overall debt ratio and long-term debt ratio. Block holders have been found to push management towards incurring additional debt to reduce managerial opportunism, as they possess greater power to influence decision-making and enhance shareholder value. This trend has been consistent across studies by Bhaumik et al. (2019), Brailsford et al. (2002), Fosberg (2004), Mehran (2009), among others.

Furthermore, a higher level of shareholder ownership may help reduce agency disputes between management and shareholders, as shareholders may exert greater influence over management decisions. This pressure to increase debt levels may be motivated by a desire to reduce management's discretionary control over cash flow and promote efficient resource

allocation. Studies by Friend and Lang (1988), Uwuigbe (2014), and Ullah et al. (2019) have all corroborated the positive relationship between shareholder ownership and leverage.

On the other hand, CEO duality, where the CEO also serves as the chairman of the board, has been found to have a significant impact on the short-term debt ratio and long-term debt ratio of manufacturing firms in Ghana. This structure may offer benefits such as streamlined decision-making and faster adaptation to changing conditions, while also potentially reducing disputes between shareholders and management. However, it may also lead to the concentration of power in a single individual and potentially undermine the role of the board of directors in decision-making. Theories such as agency theory suggest that CEO duality may reduce agency disputes, while stewardship and resource dependence theories suggest that it may lead to effective action and better performance. However, there is no one-size-fits-all approach to leadership structure, and companies may need to carefully consider their specific needs and circumstances when choosing between dual or separate leadership structures

4.7 Theoretical Contribution

The theoretical contribution of this study lies in its examination of the relationship between board size, composition, and corporate governance mechanisms on firms' capital structure decisions in Ghana. The study's findings support both the resource dependence theory and agency theory, suggesting that larger boards and a higher proportion of independent directors positively influence a firm's debt financing decisions. The study also provides evidence that the influence of independent directors may override the preferences of the management team, highlighting the importance of strong corporate governance mechanisms in shaping a firm's capital structure decisions.

Furthermore, the study's results align with the signaling theory, indicating that firms with stronger corporate governance mechanisms are perceived as more financially healthy, leading to better access to debt financing on more favourable terms. These findings provide valuable insights into the importance of corporate governance in shaping a firm's capital structure decisions and highlight the potential benefits of adopting stronger corporate governance mechanisms for firms seeking to access external financing. Overall, this study contributes to the growing body of literature on the relationship between corporate governance and capital structure decisions, particularly in the context of emerging economies such as Ghana.

The study's findings also contribute to the literature on corporate governance by highlighting the importance of board size and independent directors in shaping a firm's capital structure decisions. Specifically, the results suggest that firms with larger boards and a higher proportion of independent directors are more likely to use debt financing, which can have important implications for firm performance and financial health. Moreover, the study adds to the existing literature on capital structure theories by providing empirical evidence that supports the resource dependence theory, agency theory, and signaling theory. The results suggest that these theories can coexist and complement each other in explaining a firm's capital structure decisions.

The study's findings also contribute to the ongoing debate on the optimal board size and the role of independent directors in corporate governance. Finally, the study's focus on Ghanaian firms provides insights into the unique context of emerging economies and the role that corporate governance mechanisms can play in influencing a firm's capital structure decisions. These findings have important implications for policymakers, investors, and other

stakeholders who are interested in promoting sustainable economic growth and development in emerging markets.

4.8 Practical Contribution

The practical implications of this study are significant for firms, policymakers, investors, and other stakeholders. Firstly, the study suggests that firms with larger boards and a higher proportion of independent directors may have better access to debt financing. Therefore, firms could benefit from expanding their boards and recruiting more independent directors to improve their access to debt financing, particularly if they are looking to expand their operations. Secondly, policymakers and regulators could use the findings of this study to encourage firms to improve their corporate governance mechanisms. By promoting the appointment of more independent directors, policymakers could help firms to enhance their creditworthiness, enabling them to access debt financing on more favourable terms. This could also help to increase investor confidence in the market and improve the overall financial health of firms.

Thirdly, investors could use the findings of this study to evaluate the effectiveness of a firm's corporate governance mechanisms. By examining a firm's board composition, investors could gain insight into the firm's ability to manage risk and make effective capital structure decisions. This could inform their investment decisions and potentially lead to better investment outcomes. Finally, other stakeholders, such as creditors and suppliers, could also use the findings of this study to evaluate a firm's creditworthiness. By examining a firm's corporate governance mechanisms, stakeholders could gain insight into the firm's financial health and make informed decisions about whether to extend credit or enter into business relationships with the firm.

CHAPTER FIVE

SUMMARY CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter presents a summary of the results and findings of the studies. Subsequently, conclusions for the study were drawn and recommendations are made. The summary of the findings of the research looks at the link between working capital management strategies and financing and investments. The summary of the study focuses on the overall overview of the study which includes short explanations of the study's variables, a description of the research methods, an overall summary of the study, and as well a discussion of the findings.

5.2 Summary of the Study

The study seeks to evaluate the effect of Board size and Board independence on the capital structure of manufacturing firms in Ghana, examine the effect of managerial and institutional ownership on the capital structure of manufacturing firms in Ghana, and investigate the effect of Ownership concentration and CEO duality on the capital structure of manufacturing firms in Ghana. The Ghanaian-listed manufacturing firms are chosen as the demographic for this research. Purposive sampling is used in this study to sample 15 manufacturing firms in Ghana. Secondary data is gathered through annual reports submitted by companies for the period (2005-2021). A GMM method of estimation is adopted to estimate the parameters involved in the study objectives.

5.2.1 The Effect of Board Size and Board Independence on Capital Structure

The total debt ratio and the long-term debt ratio have a positive correlation with board size. The resource dependence theory which states that companies with larger boards are more likely to receive external financing to expand their operations is supported by these results.

Therefore, the results may be indicative of the environment in which businesses operate in Ghana, where massive boards are a common method of securing environmental support. Companies and development finance institutions are confident in lending money to companies with large boards. Both the total debt ratio and the long-term debt ratio are significantly and positively correlated with independent directors' coefficients. This study demonstrates that a board with a greater proportion of independent members is more likely to exercise vigilant oversight of management, which, in turn, is more likely to exert pressure on management to make decisions that maximize shareholder value. Independent board members can increase a company's creditworthiness, enabling it to take advantage of tax shelters by borrowing more money at more favourable interest rates.

5.2.2 The Effect of Managerial and institutional ownership on Capital Structure

The relationship between managerial and institutional ownership and a company's capital structure is substantial. According to the incentive alignment effect theory, when management owns a greater proportion of a company's stock, they are less likely to act in their self-interest, which reduces the risk of bankruptcy due to debt financing. Consequently, debt financing is appealing to managers due to the tax advantages it offers. On the other hand, these results are consistent with the theory proposed by Bokpin and Arko (2009), whose research also demonstrates that the presence of management shares in a company's ownership structure has a greater positive impact on long-term debt than equity. The most significant disadvantage of debt financing is the elevated risk of bankruptcy, which serves as the foundation for these findings.

5.2.3 The Effect of Ownership Concentration and CEO Duality

There is a statistically significant and positive relationship between ownership concentration and both the short and long-term debt ratios. Based on the findings of this study, it is evident that block holders, as opposed to widely dispersed shareholders, can exert pressure on management to incur additional debt to minimize managerial opportunism. There would be fewer agency disputes between management and shareholders if shareholders owned a greater percentage of the company. A company's shareholder has greater influence than its dispersed shareholders. For example, shareholders may compel management to make decisions that increase shareholder value. Since issuing debt is less expensive than issuing new stock, they may request a higher level of debt. Shareholders may exert pressure on management to increase debt use for reasons other than tax avoidance because doing so reduces management's discretionary control over the firm's cash flow and prevents inefficient resource allocation.

5.3 Conclusion

Based on the analysis of the effect of board size and board independence on capital structure, it is evident that larger boards are more likely to receive external financing to expand their operations. Additionally, companies with a higher proportion of independent directors tend to exercise vigilant oversight of management, which can increase a company's creditworthiness and enable it to access debt financing on more favourable terms. The practical implication of these findings is that companies should consider increasing the number of independent directors on their boards to improve their corporate governance and access to financing.

The analysis of the effect of managerial and institutional ownership on capital structure suggests that debt financing is appealing to managers due to the tax advantages it offers. However, the presence of management shares in a company's ownership structure has a greater positive impact on long-term debt than equity. The practical implication of these findings is that companies should encourage managers to own shares in the company to align their incentives with those of the shareholders and increase their willingness to take on debt financing.

The analysis of the effect of ownership concentration and CEO duality on capital structure suggests that block holders can exert pressure on management to incur additional debt to minimize managerial opportunism. Shareholders may compel management to make decisions that increase shareholder value, including increasing the level of debt use. The practical implication of these findings is that companies should consider increasing the ownership concentration of their shareholders to minimize agency disputes and improve their access to financing.

In conclusion, the findings of this study suggest that there is a complex relationship between corporate governance and a company's capital structure. The practical implications of these findings are that companies should consider improving their corporate governance mechanisms, such as increasing the number of independent directors, encouraging management to own shares in the company, and increasing ownership concentration to improve their access to financing. These findings can assist companies in making informed decisions about their capital structure and improving their financial health.

5.4 Recommendation

The Effect of Board Size and Board Independence on Capital Structure

Based on the positive correlation between board size and both total debt ratio and long-term debt ratio, companies in Ghana may benefit from increasing their board size to improve their access to external financing. Additionally, companies may consider appointing more independent directors to their boards to improve their creditworthiness and increase their ability to access debt financing on favourable terms. To implement these recommendations, companies can revise their corporate governance policies to allow for larger and more diverse boards, as well as establish procedures for appointing independent directors.

The Effect of Managerial and institutional ownership on Capital Structure

To take advantage of the incentive alignment effect theory, companies may consider increasing their managers' ownership stake to align their interests with those of shareholders, reducing the risk of bankruptcy due to debt financing. Additionally, companies may focus on long-term debt financing to benefit from the positive impact of managerial ownership on long-term debt. To implement these recommendations, companies can revise their compensation policies to include stock options or restricted stock units and provide financial incentives for managers to increase their ownership stakes.

The Effect of Ownership Concentration and CEO Duality

Based on the positive relationship between ownership concentration and both short and long-term debt ratios, companies may benefit from having a concentrated ownership structure, as block holders can exert pressure on management to incur additional debt to minimize managerial opportunism. However, companies should also balance this with ensuring that the interests of minority shareholders are protected. To implement these recommendations,

companies can revise their ownership structure to allow for greater concentration while also implementing mechanisms to protect the interests of minority shareholders, such as independent board committees or shareholder agreements.

5.5 Recommendation For Further Research

Based on the findings of this study, there are several recommendations for future research:

Board size and independence: This study found a positive relationship between board size and both total debt ratio and long-term debt ratio, as well as a positive correlation between independent directors and capital structure. Future research can explore whether these findings hold in different contexts or whether other factors, such as cultural or institutional differences, may affect these relationships. Additionally, future research could investigate the mechanisms through which independent directors affect capital structure decisions, such as through their monitoring and oversight functions.

Managerial and institutional ownership: Future research could examine how the relationship between managerial and institutional ownership and capital structure may vary across different industries or contexts. Furthermore, future research could investigate how the nature of the relationship between managerial ownership and capital structure may differ between family and non-family firms, given that family firms may have different incentives for debt financing.

Ownership concentration and CEO duality: This study found a positive relationship between ownership concentration and both short and long-term debt ratios. Future research can investigate how this relationship may vary across different industries, countries, or ownership structures. Additionally, future research could examine how the relationship

between ownership concentration and capital structure may be affected by the presence of CEO duality, which was not specifically investigated in this study.

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REFERENCES

- Abankwa, S., 2020. FX Liquidity Risk and Forward Premium Puzzle. *Quarterly Journal of Finance and Accounting*, 58.
- Abbas, F., Ali, S., Yousaf, I. and Wong, W.K., 2021. Dynamics of funding liquidity and risk-taking: evidence from commercial banks. *Journal of Risk and Financial Management*, 14(6), p.281.
- Adel, C., Hussain, M.M., Mohamed, E.K. and Basuony, M.A., 2019. Is corporate governance relevant to the quality of corporate social responsibility disclosure in large European companies? *International Journal of Accounting and Information Management*.
- Afolabi, J. 2018. Feature: Why the local banks in Ghana are collapsing. Retrieved 14 February 2019 from. ghanaweb.com/
- Agrawal, O.P., Bansal, N. and Bansal, P.K., 2019. Determinants of capital structure: A study of Indian companies.
- Agyei, A. and Owusu, A.R., 2014. The effect of ownership structure and corporate governance on capital structure of Ghanaian listed manufacturing companies. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 4(1), pp.109-118.
- Ahmed, E.R., Alabdullah, T.T.Y. and Shaharudin, M.S., 2020. Approaches to control mechanisms and their implications for companies' profitability: A study in UAE. *Journal of accounting Science*, 4(2), pp.11-20.
- Ahmed, R., Hudson, R. and Gregoriou, A., 2020. The implications of liquidity ratios: Evidence from Pakistan stock exchange limited. *The Quarterly Review of Economics and Finance*.
- Alalade, Y. S. A., Onadeko, B. B., and Okezie, O. F. C. 2019. Corporate governance practices and firms' financial performance of selected manufacturing companies in Lagos state, Nigeria. *International Journal of Finance and Banking Research*, 5(6), pp.154–165. [https:// doi.org/10.11648/j.ijfbr.20190506.14](https://doi.org/10.11648/j.ijfbr.20190506.14)

- Alarussi, A.S. and Alhaderi, S.M., 2018. Factors affecting profitability in Malaysia. *Journal of Economic Studies*.
- AlHares, A., 2020. Corporate governance mechanisms and RandD intensity in OECD courtiers. *Corporate Governance: The International Journal of Business in Society*, 20(5), pp.863-885.
- Ali, M.M., Hussin, N.N.A. and Ghani, E.K., 2019. Liquidity, Growth and Profitability of Non-Financial Public Listed Malaysia: A Malaysian Evidence. *International Journal of Financial Research*, 10(3), pp.194-202.
- AlSagr, N., Belkhaoui, S. and Aldosari, A., 2018. The effect of corporate governance mechanisms on bank performance evidence from Saudi banking sector. *Asian Economic and Financial Review*, 8(8), pp.1111-1125.
- Al-Sartawi, A.M.M. and Reyad, S.M.R., 2019. The relationship between the extent of online financial disclosure and profitability of Islamic banks. *Journal of Financial Reporting and Accounting*.
- Amidjaya, P.G. and Widagdo, A.K., 2019. Sustainability reporting in Indonesian listed banks: Do corporate governance, ownership structure and digital banking matter? *Journal of Applied Accounting Research*.
- Amoako-Gyampah, K., Boakye, K.G., Adaku, E. and Famiyeh, S., 2019. Supplier relationship management and firm performance in developing economies: A moderated mediation analysis of flexibility capability and ownership structure. *International Journal of Production Economics*, 208, pp.160-170.
- Aprilyani, I., Widyarti, M.T.H. and Hamida, N., 2021. The effect of erm, firm size, leverage, profitability and dividend policy on firm value (evidence from food and beverage sub-sector companies listed in IDX 2015-2019). *Jurnal Aktual Akuntansi Keuangan Bisnis Terapan (AKUNBISNIS)*, 4(1), pp.65-75.
- Arellano, M., Bond, S., 1991. Some tests of specification for panel data: Monte Carlo evidence and application to employment equations. *The Review of Economic Studies* 58(2), 2772.

- Assoil, A., Ka, N. and Sadefo-Kamdem, J., 2021. Analysis of the dynamic relationship between liquidity proxies and returns on the French CAC 40 index. *SN Business and Economics*, 1(10), pp.1-23.
- Bajaj, Y., Kashiramka, S. and Singh, S., 2020. Application of capital structure theories: a systematic review. *Journal of Advances in Management Research*.
- Banahene, K. O. 2018. Ghana banking system failure: The need for restoration of public trust and confidence. *International Journal of Business and Social Research*, 8(10), pp.1–5. <https://ideas.repec.org/a/lrc/larijb/v8y2018i10p1-5.html>
- Batten, J. and Vo, X.V., 2019. Liquidity and firm value in an emerging market. *The Singapore Economic Review*, 64(02), pp.365-376.
- Będowska-Sójka, B., 2018. The coherence of liquidity measures. The evidence from the emerging market. *Finance Research Letters*, 27, pp.118-123.
- Berke-Berga, A. and Dovladbekova, I., 2019. Capital structure and corporate governance: Evidence from eastern european listed companies. *Polish Journal of Management Studies*.
- Bhaumik, S., Driffield, N., Gaur, A., Mickiewicz, T. and Vaaler, P., 2019. Corporate governance and MNE strategies in emerging economies. *Journal of World Business*, 54(4), pp.234-243.
- Blundell, R., Bond, S., 1998. Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics* 87(1), 115143.
- Boachie, C. 2021. Corporate governance and financial performance of banks in Ghana: The moderating role of ownership structure. *International Journal of Emerging Markets*. <https://doi.org/10.1108/IJOEM-09-2020-1146>
- Bohmann, M., Michayluk, D., Patel, V. and Walsh, K., 2019. Liquidity and earnings in event studies: Does data granularity matter? *Pacific-Basin Finance Journal*, 54, pp.118-131.

- Boivie, S., Withers, M.C., Graffin, S.D. and Corley, K.G., 2021. Corporate directors' implicit theories of the roles and duties of boards. *Strategic Management Journal*, 42(9), pp.1662-1695.
- Bolarinwa, S.T. and Adegboye, A.A., 2020. Re-examining the determinants of capital structure in Nigeria. *Journal of Economic and Administrative Sciences*.
- Bufarwa, I.M., Elamer, A.A., Ntim, C.G. and AlHares, A., 2020. Gender diversity, corporate governance and financial risk disclosure in the UK. *International Journal of Law and Management*.
- Campbell, G. and Rogers, M., 2018. Capital structure volatility in Europe. *International Review of Financial Analysis*, 55, pp.128-139.
- Chaudhry, N.I., Roomi, M.A. and Aftab, I., 2020. Impact of expertise of audit committee chair and nomination committee chair on financial performance of firm. *Corporate Governance: The International Journal of Business in Society*, 20(4), pp.621-638.
- Chauhan, S., Verma, A. and Kumar, C.V., 2022. Effect of Capital Structure on the Financial and Social Performance of Indian Microfinance Institutions. *FIIB Business Review*, p.23197145221099677.
- Chodorow-Reich, G., Darmouni, O., Luck, S. and Plosser, M., 2022. Bank liquidity provision across the firm size distribution. *Journal of Financial Economics*, 144(3), pp.908-932.
- Chow, Y.P., Muhammad, J., Bany-Arifin, A.N. and Cheng, F.F., 2018. Macroeconomic uncertainty, corporate governance and corporate capital structure. *International Journal of Managerial Finance*.
- Cima, J., Pimenta, A.C., Portela, M. and Silva, M., 2022. Workforce skills and firm productivity.
- Creswell, J. W., and Creswell, J. D. 2017. Research design: Qualitative, quantitative, and mixed methods approach. *Sage publications*

- da Costa Carreiras, C., 2018. The effects of reducing the tax discrimination between debt and equity: the case of Belgian ACE.
- Danoshana, S. and Ravivathani, T., 2019. The impact of the corporate governance on firm performance: A study on financial institutions in Sri Lanka. *SAARJ Journal on Banking and Insurance Research*, 8(1), pp.62-67.
- Danquah S.B., Oko-Bensa-Agyekum K., Opoku E., and Ntim C. G., 2022. Corporate governance and the performance of manufacturing firms in Ghana: Does ownership structure matter? *Cogent Business and Management*, 9:1, DOI: [10.1080/23311975.2022.2101323](https://doi.org/10.1080/23311975.2022.2101323)
- Danso, A., Lartey, T., Fosu, S., Owusu-Agyei, S. and Uddin, M., 2019. Leverage and firm investment: the role of information asymmetry and growth. *International Journal of Accounting and Information Management*.
- De Andrés, P., de la Fuente, G. and San Martin, P., 2018. Capital structure decisions: What Spanish CFOs think. *Academia Revista Latinoamericana de Administración*.
- Debrah, K. 2018. The collapse of indigenous banks due to corporate governance failure –. *Banking Consultant*.
- Dewi, L.C. and Nugrahanti, Y.W., 2014. Pengaruh Struktur Kepemilikan dan Dewan Komisaris Independen terhadap Nilai Perusahaan (Studi pada Perusahaan Industri Barang Konsumsi di Bei Tahun 2011–2013). *Kinerja*, 18(1), pp.64-80.
- Dinova, R.D.K. and Herawati, A., 2019. The Effect Of Profitability, Capital Structure, and Corporate Value On Stock Return (Pharmaceutical Sub Sector In Indonesia Stock Exchange 2015-2017). *Dinasti International Journal of Education Management And Social Science*, 1(2), pp.224-234.
- Du Plessis, J.J., Hargovan, A. and Harris, J., 2018. *Principles of contemporary corporate governance*. Cambridge University Press.
- Eling, M. and Jia, R., 2019. Efficiency and profitability in the global insurance industry. *Pacific-Basin Finance Journal*, 57, p.101190.

- Elston, J., 2019. Corporate governance: what we know and what we don't know. *Journal of Industrial and Business Economics*, 46(2), pp.147-156.
- Fama, E.F., 1980. Agency problems and the theory of the firm. *Journal of political economy*, 88(2), pp.288-307.
- Feld, B., Blumberg, M. and Ramsinghani, M., 2022. *Startup Boards: A Field Guide to Building and Leading an Effective Board of Directors*. John Wiley and Sons.
- Feng, Y., Hassan, A. and Elamer, A.A., 2020. Corporate governance, ownership structure and capital structure: evidence from Chinese real estate listed companies. *International Journal of Accounting and Information Management*.
- Ganja, C., 2019. The liquidity premium: Evidence from the Polish stock market. *The Review of Finance and Banking*, 11(1).
- Gerged, A.M., Al-Haddad, L.M. and Al-Hajri, M.O., 2020. Is earnings management associated with corporate environmental disclosure? Evidence from Kuwaiti listed firms. *Accounting Research Journal*.
- Gerged, A.M., Cowton, C.J. and Beddewela, E.S., 2018. Towards sustainable development in the Arab Middle East and North Africa region: A longitudinal analysis of environmental disclosure in corporate annual reports. *Business Strategy and the Environment*, 27(4), pp.572-587.
- Goh, C.F., Tai, W.Y., Rasli, A., Tan, O.K. and Zakuan, N., 2018. The determinants of capital structure: evidence from Malaysian companies. *International Journal of Supply Chain Management*, 7(3), pp.225-230.
- Goldberg, J. and Nozawa, Y., 2021. Liquidity supply in the corporate bond market. *The Journal of Finance*, 76(2), pp.755-796.
- Gujarati, D., 2012. *Damodar Gujarati Econometrics by Example*.
- Handoo, A. and Sharma, K., 2014. A study on determinants of capital structure in India. *IIMB Management review*, 26(3), pp.170-182.

- Haque, F., 2018. Ownership, regulation and bank risk-taking: evidence from the Middle East and North Africa (MENA) region. *Corporate Governance: The International Journal of Business in Society*.
- Haque, F., Arun, T.G. and Kirkpatrick, C., 2011. Corporate governance and capital structure in developing countries: A case study of Bangladesh. *Applied Economics*, 43(6), pp.673-681.
- Hassan Bazhair, A. and Naif Alshareef, M., 2022. Dynamic relationship between ownership structure and financial performance: a Saudi experience. *Cogent Business and Management*, 9(1), p.2098636.
- Hidayati, N. and Fidiana, F., 2017. Pengaruh Corporate Social Responsibility Dan Good Corporate Governance Terhadap Penghindaran Pajak. *Jurnal Ilmu dan Riset Akuntansi (JIRA)*, 6(3).
- Hossain, M.S. and Tohidul Alam, M., 2019. The Impact of Corporate Governance and Financial Leverage on Firm Value: Evidence from Non-Financial Firms Listed in Dhaka Stock Exchange. *Journal of Business*, 12(2), p.67.
- Hsiao, C. 2014. Analysis of Panel Data. Third Edition. University of Southern California.
- Hsieh, H.C., Claresta, V. and Bui, T.M.N., 2020. Green building, cost of equity capital and corporate governance: Evidence from US real estate investment trusts. *Sustainability*, 12(9), p.3680.
- Husaeni, U.A., 2018. Determinants of capital structure in companies listed in the Jakarta Islamic Index. *International Journal of Economics, Management and Accounting*, 26(2), pp.443-456.
- Hussain, J., Sandhu, N., El-Gohary, H. and Edwards, D.J., 2020. The reality of financing small tourism firms: The case of Indian tourism SMEs. *International Journal of Customer Relationship Marketing and Management (IJCRMM)*, 11(1), pp.64-80.
- Hussain, S., Quddus, A., Pham, P.T., Rafiq, M. and Pavelková, D., 2020. The moderating role of firm size and interest rate in capital structure of the firms: Selected sample from sugar sector of Pakistan. *Investment Management and Financial Innovations*.

- Hussainey, K. and Aljifri, K., 2012. Corporate governance mechanisms and capital structure in UAE. *Journal of Applied Accounting Research*.
- Huu Nguyen, A., Minh Thi Vu, T. and Truc Thi Doan, Q., 2020. Corporate governance and stock price synchronicity: Empirical evidence from Vietnam. *International Journal of Financial Studies*, 8(2), p.22.
- Jael, P., 2019. Does Marginal Productivity Mean Anything in Real Economic Life?.
- Javaid, A., Nazir, M.S. and Fatima, K., 2021. Impact of corporate governance on capital structure: mediating role of cost of capital. *Journal of Economic and Administrative Sciences*.
- Jensen, M.C. and Meckling, W.H., 1976. 'Theory of the firm: Managerial behaviour, agency costs and ownership structure, *Journal of Financial Economics*, Vol. 3, pp. 305–360.
- Jiraporn, P., Kim, J.C., Kim, Y.S. and Kitsabunnarat, P., 2012. Capital structure and corporate governance quality: Evidence from the Institutional Shareholder Services (ISS). *International Review of Economics and Finance*, 22(1), pp.208-221.
- Kelly, M., Dowling, M., and Millar, M. 2018. The search for understanding: the role of Paradigms, *Nurse. Researcher*, 25, 4(4-13). Doi:10.7748/nr.2018.e1499
- Khan, S., Bashir, U. and Islam, M.S., 2020. Determinants of capital structure of banks: evidence from the Kingdom of Saudi Arabia. *International Journal of Islamic and Middle Eastern Finance and Management*.
- Koralun-Bereźnicka, J., 2021. Industry and Size Effect in the Relation Between Corporate Material and Financial Decisions: Findings from the EU Countries. In *Contemporary Trends and Challenges in Finance* (pp. 189-199). Springer, Cham.
- Kpodo, B. 2019. Exploring the underlying corporate governance weaknesses in the recent banking crisis in Ghana. Retrieved 19 May, 2020 from. <https://www.modernghana.com/news/954587/exploring-the-underlying-corporate-governance-weak.htm>

- Krechovska, M., and Prochazkova, P.T. 2014. Sustainability and its integration into corporate governance focusing on corporate performance management and reporting. *Procedia Engineering*, 69, pp.1144–1151.
- Lartey, T., Kesse, K. and Danso, A., 2020. CEO extraversion and capital structure decisions: the role of firm dynamics, product market competition, and financial crisis. *Journal of Financial Research*, 43(4), pp.847-893.
- Lasta, H.A., Arifin, Z. and Nuzula, N.F., 2014. Analisis Tingkat Kesehatan Bank Dengan Menggunakan Pendekatan RGEC (Risk Profile, Good Corporate Governance, Earnings, Capital)(Studi pada PT. Bank Rakyat Indonesia, Tbk Periode 2011-2013). *Jurnal Administrasi Bisnis*, 13(2).
- Le, H. and Gregoriou, A., 2020. How do you capture liquidity? A review of the literature on low-frequency stock liquidity. *Journal of Economic Surveys*, 34(5), pp.1170-1186.
- Lim, K.Y. and Morris, D., 2022. Thresholds in natural resource rents and state owned enterprise profitability: Cross country evidence. *Energy Economics*, 106, p.105779.
- Lin, K.J., Lu, X., Zhang, J. and Zheng, Y., 2020. State-owned enterprises in China: A review of 40 years of research and practice. *China Journal of Accounting Research*, 13(1), pp.31-55.
- Liu, G., Liu, Y. and Zhang, C., 2021. Human capital in the financial sector and corporate debt maturity. *China Economic Review*, 69, p.101652.
- Manna, A., Sahu, T.N. and Gupta, A., 2016. Impact of ownership structure and board composition on corporate performance in Indian companies. *Indian Journal of Corporate Governance*, 9(1), pp.44-66.
- Manu, R., Alhabsji, T., Rahayu, S. and Nuzula, N., 2019. The effect of corporate governance on profitability, capital structure and corporate value. *Research Journal of Finance and Accounting*, 10(8), pp.202-214.
- McKenzie, R., Law Chapple, L., Sinnewe, E. and Osborne, S., 2019. Responsibilities within the governance space: a study of the role of the company secretary on contemporary boards. *Available at SSRN 3338309*.

- Melia, A., 2015. Pengaruh good corporate governance terhadap kinerja perusahaan pada sektor keuangan. *Business accounting review*, 3(1), pp.223-232.
- Mishra, R., and Kapil, S. 2017. Effect of ownership structure and board structure on firm value: Evidence from India. *Corporate Governance: The International Journal of Business in Society*, 17(4), pp.700–726. <https://doi.org/10.1108/CG-03-2016-0059>
- Moyi, E. 2018. Re: What are the Pretest and post-test for System GMM method? Retrieved from: <https://www.researchgate.net/post/What-are-the-Pretest-and-post-test-for-System-GMM-method/5ab6f98af7b67e7afe5183ce/citation/download>
- Mujiatun, S., Rahmayati, R. and Ferina, D., 2021, February. Effect Of Profitability And Asset Structure On Capital Structure (In Sharia Based Manufacturing Companies In Indonesia Stock Exchange In 2016-2019 Period). In *Proceeding International Seminar Of Islamic Studies* (Vol. 2, No. 1, pp. 458-468).
- Muttakin, M.B., Mihret, D., Lemma, T.T. and Khan, A., 2020. Integrated reporting, financial reporting quality and cost of debt. *International Journal of Accounting and Information Management*.
- Myers, S.C., 1984. Capital structure puzzle.
- Naciti, V., Cesaroni, F. and Pulejo, L., 2021. Corporate governance and sustainability: A review of the existing literature. *Journal of Management and Governance*, pp.1-20.
- Nancekivell, S.E., Friedman, O. and Gelman, S.A., 2019. Ownership matters: People possess a naïve theory of ownership. *Trends in Cognitive Sciences*, 23(2), pp.102-113.
- Odit, M.P. and Gobardhun, Y.D., 2011. The determinants of financial leverage of SMEs in Mauritius. *International Business and Economics Research Journal (IBER)*, 10(3), pp.113-126.
- Okegbe, T.O., Eneh, O.M.R. and Ndubuisi, A.N., 2019. Effect of firm characteristics on capital structure of deposit money banks listed on Nigerian stock. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 9(2), pp.198-210.

- O'Leary Z. 2010. *The Essential Guide to Doing your Research Project*. New Delhi.
- Onwuegbuzie, A. J., and Frels, R. 2015. *Seven steps to a comprehensive literature review*. Los Angeles, CA: Sage.
- Oyedokun, G. E., Job-Olatuji, K. A., and Sanyaolu, W. A. 2018. Capital structure and firm financial performance. *Accounting and Taxation Review*, 2(1), pp.56–71
- Pacheco, L.M., 2022. Ownership concentration, control, and capital structure in family and non-family firms.
- Panda, A.K. and Nanda, S., 2020. Determinants of capital structure; a sector-level analysis for Indian manufacturing firms. *International Journal of Productivity and Performance Management*.
- Pardede, R.F., 2017. Pengaruh Good Corporate Governance, Struktur Kepemilikan, Dan Ukuran Perusahaan Terhadap Kinerja Perusahaan Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Periode 2012-2016.
- Pathak, M. and Chandani, A., 2021. The nexus between capital structure and firm-specific factors: Evidence from Indian companies. *Journal of Economic and Administrative Sciences*.
- Peizhi, W., and Ramzan, M. 2020. Do corporate governance structure and capital structure matter for the performance of the firms? An empirical testing with the contemplation of outliers. *PLoS One*, 15(2), pp.1–25
- Pham, K.X., Nguyen, Q.N. and Nguyen, C.V., 2020. Effect of working capital management on the profitability of steel companies on Vietnam stock exchanges. *The Journal of Asian Finance, Economics, and Business*, 7(10), pp.741-750.
- Phillips, R. F. 2019. Acomparision of first-difference and forward orthogonal deviations GMM. arXiv preprint arXiv:1907.12880 (Cornell University).
- Pooser, D.M. and Browne, M.J., 2018. The effects of customer satisfaction on company profitability: Evidence from the property and casualty insurance industry. *Risk Management and Insurance Review*, 21(2), pp.289-308.

- Pratiwi, I.R., 2016. Effect of capital structure and corporate governance on firm value (Study of listed banking companies in Indonesia Stock Exchange). *Journal of Accounting and Business Studies*, 1(1).
- Purbawangsa, I.B.A., Solimun, S., Fernandes, A.A.R. and Rahayu, S.M., 2019. Corporate governance, corporate profitability toward corporate social responsibility disclosure and corporate value (comparative study in Indonesia, China, and India stock exchange in 2013-2016). *Social Responsibility Journal*, 16(7), pp.983-999.
- Raimo, N., Vitolla, F., Marrone, A. and Rubino, M., 2020. The role of ownership structure in integrated reporting policies. *Business Strategy and the Environment*, 29(6), pp.2238-2250.
- Ramezanalivaloujerdi, R., Rasiah, D. and Narayanasamy, K., 2015. Corporate capital structure and performance of listed construction companies in Malaysia from 2005-2009. *International Business Management*, 9(3), pp.191-199.
- Rashid, M.M., 2020. Ownership structure and firm performance: the mediating role of board characteristics. *Corporate Governance: The International Journal of Business in Society*, 20(4), pp.719-737.
- Research Design and Its Main Types. [online]. Available at: <https://edubirdie.com/examples/research-design-and-its-main-types> [Accessed 17 Dec. 2022].
- Ronoowah, R.K. and Seetana, B., 2022. Determinants of corporate governance disclosure: evidence from an emerging market. *Journal of Accounting in Emerging Economies*.
- Rumini, R., Sugiharto, B. and Kurniawan, A., 2019. The Moderating Effect of Competitive Strategies on Intellectual Capital and Company Value in Banking Companies. *ACCRUALS (Accounting Research Journal of Sutaatmadja)*, 3(1), pp.92-105.
- Ruwanti, G., Chandrarin, G. and Assih, P., 2019. The Influence of Corporate Governance in The Relationship of Firm Size and Leverage on Earnings Management. *International Journal of Innovative Science and Research Technology*, 4(8), pp.142-147.

- Ryu, D., Webb, R.I. and Yu, J., 2022. Liquidity-adjusted value-at-risk: a comprehensive extension with microstructural liquidity components. *The European Journal of Finance*, 28(9), pp.871-888.
- Sadewa, P.O. and Lubis, A.W., 2022. Liquidity, CEO education, and profitability among consumer goods companies in Indonesia. In *Contemporary Research on Management and Business* (pp. 176-179). CRC Press.
- Saif-Alyousfi, A.Y., Md-Rus, R., Taufil-Mohd, K.N., Taib, H.M. and Shahar, H.K., 2020. Determinants of capital structure: evidence from Malaysian firms. *Asia-Pacific Journal of Business Administration*.
- Sanil, H.S., bin Noraidi, A.A.A. and Ramakrishnan, S., 2018. The Impact of Different Firm Sizes on Capital Structure Determinants Among Listed Consumer Product Firms In Malaysia. *Journal of Economic Info*, 5(2), pp.1-6.
- Santoso, G.A.P., Yulianeu, Y. and Fathoni, A., 2018. Analysis Of Effect Of Good Corporate Governance, Financial Performance And Firm Size On Financial Distress In Property And Real Estate Company Listed BEI 2012-2016. *Journal of Management*, 4(4).
- Sarpong-Danquah, B., Gyimah, P., Afriyie, R.O. and Asiamah, A., 2018. Corporate governance and firm performance: An empirical analysis of manufacturing listed firms in Ghana. *Accounting and Finance Research*, 7(3), pp.111-118.
- Saunders, M., and Lewis, P. (2017). *Doing research in business and management*. Pearson.
- Selassie, A. R. 2018. Ghana's banking crisis. Is it more of bad corporate governance practices or weak regulations? <https://www.linkedin.com/pulse/ghanas-banking-crisis-more-bad-corporate-governance-weak-a-rich>
- Sewpersadh, N.S., 2019. A theoretical and econometric evaluation of corporate governance and capital structure in JSE-listed companies. *Corporate Governance: The international journal of business in society*.
- Shu, P.G. and Chiang, S.J., 2020. The impact of corporate governance on corporate social performance: Cases from listed firms in Taiwan. *Pacific-Basin Finance Journal*, 61, p.101332.

- Sibarani, J.L., Ginarti, C., Tambun, R. and Surianti, M., 2020. Analysis of the Influence of Capital Structure and Profit Ability on Corporate Value: Empirical Study with Modigliani and Miller Theory of Investment Review. *European Journal of Business and Management*, 12(3), pp.164-170.
- Suardikha, M.S. and Apriada, K., 2016. Pengaruh struktur kepemilikan saham, struktur modal dan profitabilitas pada nilai perusahaan. *E-Jurnal Ekonomi dan Bisnis Universitas Udayana*, p.44768.
- Syamni, G., 2018. CSR and profitability in IDX agricultural subsectors. In *Proceedings of MICoMS 2017*. Emerald Publishing Limited.
- Tafa, M. D and Worku, S. T. 2022. Determinants of private commercial banks deposit in Ethiopia, *Cogent Economics and Finance*, 10:1, 2098608, DOI: 10.1080/23322039.2022.2098608
- Teja, A., 2019. Tax Rate and Non-Debt Tax Shield. *Jurnal Riset Manajemen dan Bisnis (JRMB) Fakultas Ekonomi UNIAT*, 4(2), pp.257-268.
- Tsinas, M. 2019. Panel Data Econometrics: Empirical applications. Academic Press.
- Ullah, M., Afgan, N., Hashim, M., and Khan, M. A. 2017. The impact of corporate governance on financial performance of Pakistan's cement manufacturing firms. *City University Research Journal*, pp. 14–20. <https://www.proquest.com/docview/2102339441?pq-origsite=gscholarandfromopenview=true>.
- Ullah, M.S., Muttakin, M.B. and Khan, A., 2019. Corporate governance and corporate social responsibility disclosures in insurance companies. *International Journal of Accounting and Information Management*.
- Ullah, W., Ali, S. and Mehmood, S., 2017. Impact of excess control, ownership structure and corporate governance on firm performance of diversified group firms in Pakistan. *Business and Economic Review*, 9(2), pp.49-72.
- Uwuigbe, U., 2014. Corporate governance and capital structure: evidence from listed firms in Nigeria Stock Exchange. *The Journal of Accounting and Management*, 4(1).

- Uwuigbe, U., Peter, D.S. and Oyeniyi, A., 2014. The effects of corporate governance mechanisms on earnings management of listed firms in Nigeria. *Accounting and Management Information Systems*, 13(1), p.159.
- Vijayakumaran, S. and Vijayakumaran, R., 2019. Corporate governance and capital structure decisions: Evidence from Chinese listed companies. *Journal of Asian Finance, Economics and Business*, 6(3), pp.67-79.
- Vo, X.V. and Phan, D.B.A., 2019. Herding and equity market liquidity in emerging market. Evidence from Vietnam. *Journal of Behavioral and Experimental Finance*, 24, p.100189.
- Vo, X.V., 2017. Determinants of capital structure in emerging markets: Evidence from Vietnam. *Research in International Business and Finance*, 40, pp.105-113.
- Vu, T.M.T., Tran, C.Q., Doan, D.T. and Le, T.N., 2020. Determinants of capital structure: The Case in Vietnam. *The Journal of Asian Finance, Economics and Business*, 7(9), pp.159-168.
- Wati, M., 2016. Pengaruh Good Corporate Governance, Csr, Dan Ukuran Perusahaan Terhadap Kinerja Perusahaan. *Economica: Jurnal Program Studi Pendidikan Ekonomi STKIP PGRI Sumatera Barat*, 4(2), pp.210-226.
- Widodo, T.T. and Firmansyah, A., 2021. Does Investors Respond To Tax Avoidance And Tax Risk? Stewardship Perspective. *Bina Ekonomi*, 25(1), pp.23-40.
- Wulandari, N.P.I. and Artini, L.G.S., 2019. Pengaruh Likuiditas, Non-Debt Tax Shield, Ukuran Perusahaan Dan Pertumbuhan Penjualan Terhadap Struktur Modal. *E-Jurnal Manajemen Universitas Udayana*, 8(6), p.3560.
- Yameen, M., Farhan, N. H., and Tabash, M. I. 2019. The impact of corporate governance practices on firm's performance: Empirical evidence from Indian tourism sector. *Journal of International Studies*, 12(1), pp.208–228. <https://doi.org/10.14254/2071-8330.2019/12-1/14>
- Yapa Abeywardhana, D., 2017. Capital structure theory: An overview. *Accounting and finance research*, 6(1).

- Yemane, A.A., Raju, M.L. and Raju, R.M., 2015. The impact of corporate governance on firm performance: Evidence from ethiopian insurance companies. *Res. J. Financ. Account*, 11(2).
- Yüksel, S., Mukhtarov, S., Mammadov, E. and Özsarı, M., 2018. Determinants of profitability in the banking sector: an analysis of post-soviet countries. *Economies*, 6(3), p.41.
- Yulianto, A., Suhadak, D. and Handayani, S.R., 2014. The role of corporate governance, dividend policy, and capital structure on ownership structure toward the firm value. *European Journal of Business and Management*, 6(8), pp.134-141.
- Yussof, M.N.M., Ali, M.M. and Ghani, E.K., 2020. Determinants of share price movement on government-linked companies in Malaysia. *Univers. J. Account. Financ*, 8(4), pp.161-169.
- Zaid, M.A., Wang, M., Abuhijleh, S.T., Issa, A., Saleh, M.W. and Ali, F., 2020. Corporate governance practices and capital structure decisions: the moderating effect of gender diversity. *Corporate Governance: The International Journal of Business in Society*.
- Zhao, W., Zou, L., Jia, H., Zheng, J., Wang, D., Song, J., Hong, C., Liu, R., Xu, W., Yang, Y. and Xiao, J., 2020. Optimized Al doping improves both interphase stability and bulk structural integrity of Ni-rich NMC cathode materials. *ACS applied energy materials*, 3(4), pp.3369-3377.
- Zhuang, Y., Xu, P., Mao, C., Wang, L., Krumm, B., Zhou, X.E., Huang, S., Liu, H., Cheng, X., Huang, X.P. and Shen, D.D., 2021. Structural insights into the human D1 and D2 dopamine receptor signaling complexes. *Cell*, 184(4), pp.931-942.
- Zulvia, Y. and Linda, M.R., 2019. The determinants of capital structure in manufacturing companies listed on the Indonesia stock exchange with the firms' size as a moderating variable. *KnE Social Sciences*.